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WASTEWATER FACILITY STUDY

CITY OF

BREEZY POINT, MINNESOTA

MAY 2024

Widseth No 2022-11991

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CERTIFICATION

WASTEWATER FACILITY STUDY

BREEZY POINT, Minnesota

By

WiDSETH

7804 Industrial Park Road ■ Baxter, MN 56425

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Timothy M. Houle

Timothy M. Houle, P.E. (MN PE 25132)	45500	May 15, 2024
For Joseph E. Dubel, P.E	Reg. No.	Date

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A. INTRODUCTION

Population, development, and wastewater flows have been increasing over the years. It is anticipated a new stabilization pond will be needed and possibly expansion of the existing spray irrigation. The Wastewater Treatment Facilities (WWTF) operates under Minnesota Pollution Agency (MPCA) Solid Disposal System (SDS) Permit MN0047457. This report is proactively looking at the City's wastewater system, as it pertains to the WWTF increase flows and aging infostructure of the facility.

The WWTF consists of a series of stabilization ponds treating wastewater so that it can be discharged via spray irrigation into wooded areas adjacent to the ponds on City-owned property. The city also owns land adjacent to the existing WWTF for additional expansion as the city population continues to grow.

This report will analyze the growth in the population, WWTF loading, spray irrigation limits, and the trend in the Equivalent Residential Units (ERU's) over the next 20-year period to see where the need in the system will the greatest and when it will be required.

Not all of the city is currently served by the municipal collection system. Many areas are served by individual sewage treatment systems (ISTS's), and it is not anticipated to change in the foreseeable future. Therefore, extensions of the sanitary sewer collection occur when new developments, homes, or where business are being built in close proximity to the sewer collection system.

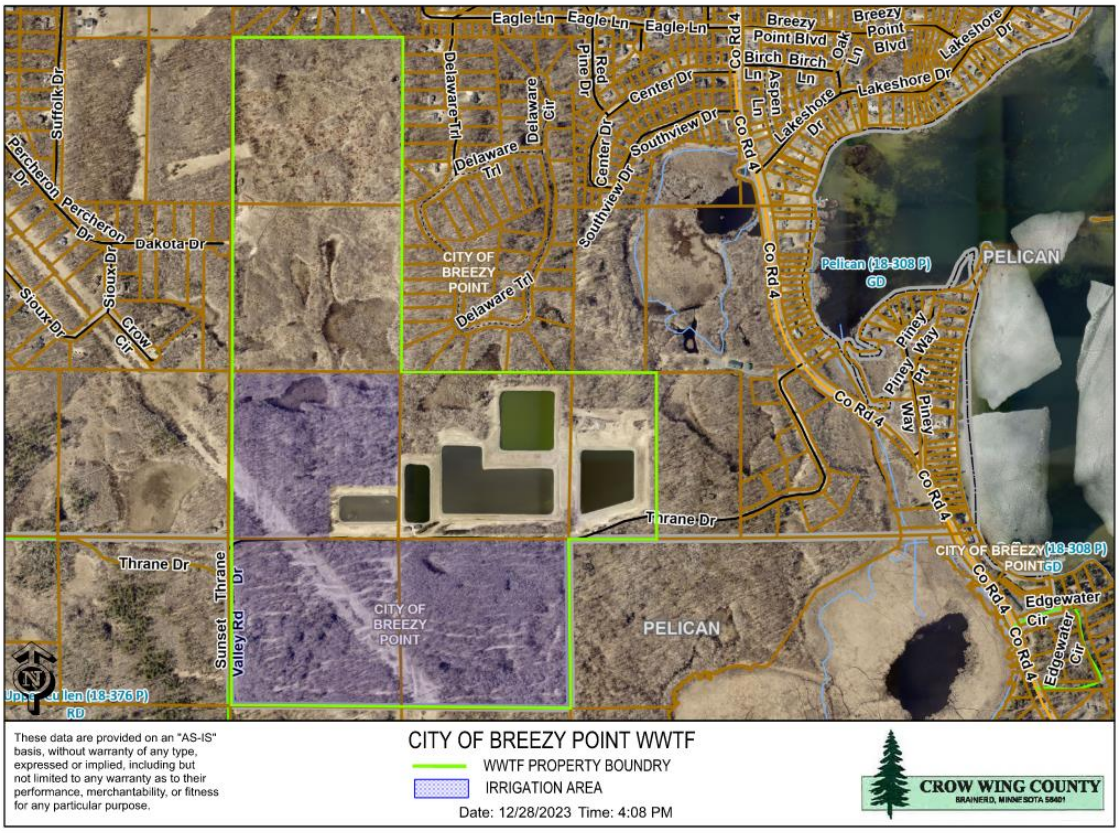
It is anticipated a new stabilization pond will be needed along with more spray irrigation in the near future. The city already owns land next to the existing WWTF for anticipated expansions for stabilization ponds and spray irrigation. Also, the "headworks" is aged, seen its useful life, and needs to be replaced.

B. PROJECT PLANNING AREA

a. Project Location

The City's WWTF is located, generally, in the southern portion of the city, west of Pelican Lake. FIGURE A shows the outline of the WWTF area, ponds, and unused land available for future expansion of the pond and irrigation system.

FIGURE A



b. Environmental Impacts

It is anticipated new improvements will be located next to the existing City WWTF on land presently owned by the city. As such, at this Study level point in time, significant environmental impacts are not anticipated. Preliminary review, as documented in the Environmental Information Worksheet (EIW; Appendix H), revealed the following:

i. The proposed Project received determinations of “no effect” or “not likely to adversely affect” federally listed threatened or endangered species. No critical habitats for threatened/endangered species were identified within the Project Area.

ii. The Project has the potential to impact Blanding’s turtles (*Emydoidea blandingii*), a state-listed threatened species, through habitat disturbance/destruction due to construction activities. An avoidance plan is required.

iii. The Project Area falls within a Minnesota Biological Survey (MBS) Site of High Biodiversity Significance. The EIW lists some preventative actions that need to be taken in order to minimize disturbance to this ecologically sensitive area.

iv. The southeastern corner of the spray irrigation fields lies within a shoreland buffer zone. Runoff of treated water used in spray irrigation will comply with stormwater management standards in Article 41 of the Crow Wing County Land Use Ordinance.

v. Sandy soils within the Project Area have a severe erosion hazard rating. Best management practices (BMPs) for erosion and sediment control to be included in the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit must be followed by the Contractor.

vi. Water quality impacts due to surface-water runoff from the Project Area are anticipated to be insignificant due to the topography of the site, location in relation to the nearest

receiving water body, and planned establishment of vegetation onsite as quickly as possible. A Stormwater Pollution Prevention Plan (SWPPP) will be developed for the proposed improvements to the WWTF.

vii. The WWTF has met discharge criteria as set forth in the City's NPDES permit. Previous water quality data from a network of seven groundwater monitoring wells throughout the spray irrigation area show that the facility is functioning properly with high quality effluent used for irrigation.

viii. There are no known geological hazards (sinkholes, shallow limestone formations, karst conditions, etc.) near the Project Area.

ix. The Contractor will be required to follow BMPs to minimize temporary impacts during the construction phase of the Project (including noise, dust, and traffic detours).

x. State Historic Preservation Office (SHPO) database review identified a total of three archaeological site and seventeen historic properties in the vicinity of the Project Area. Based on the National Registry of Historic Places (NRHP) status of these sites and/or their proximity to the Project Area, no adverse impacts are anticipated as a result of the proposed WWTF expansion.

xi. The Project is not exempt from Section 106 review and will require further consultation with SHPO, tribal organizations, and other interested parties.

No other adverse environmental impacts are anticipated within the scope of the Project. Specific issues identified above will be addressed during the Design phase.

c. Population Trends

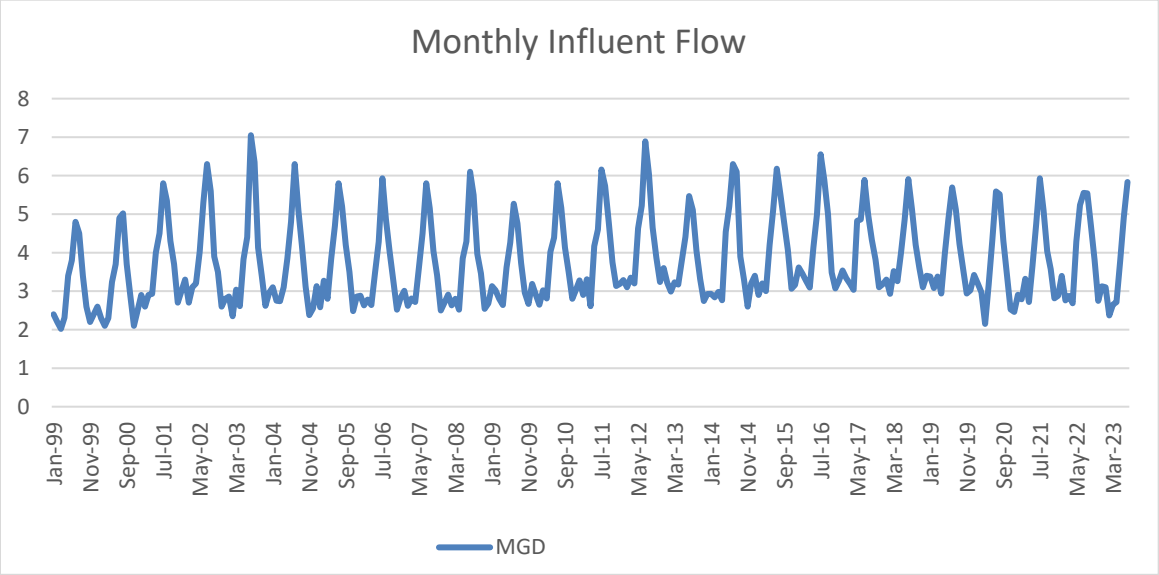
U.S. Census data shows the city grew at an annual rate of 4.89% from 2000 to 2020 (a population of 979 to 2,574). However, there are many factors that affect the relationship between sanitary sewer flow, population and the ERUs which make estimating for future growth more challenging. While the population in other (non-recreational) cities can be better predicted, the City of Breezy Point and some other neighboring communities have populations that double (and triple) during the summer months.

d. Wastewater Flows and Loading (Discharge Monitoring Reports)

The Discharge Monitoring Reports (DMRs) where collected from the MPCA web site and tabulated and are in Appendix D - Flow, Population, ERU's Estimated Growth to show the comparisons between the three sets of data used to determine the sequence of WWTF deficiency's to be addressed.

As seen in Appendix D the DMR flows, population, and ERUs were compared using past data to develop trendlines and project the future growth through the design period (2023-2043). The wastewater flows in most cities generally correlate with the population. With the increased level of flows from transient traffic, summer tourism, resort, and rentals the spike in the population makes this relationship not a reliable predicter. Figure B below shows the increased flow in the summer months peaking in July of each year attributed to the increased recreational population.

FIGURE B



C. EXISTING SANITARY SEWER FACILITIES

a. Existing Utility Location Maps

Appendix A contains a map for the location of the City's overall wastewater system. The city built the wastewater treatment facility and sewer infrastructure in 1978.

b. Existing Utility System Components

i. Wastewater Collection System and Forcemain.

The sanitary sewer collection system is mostly 8" PVC with some 10-inch totaling about 83,000 feet of gravity pipe, in addition to the gravity sewer pipe there is about 27,000 feet of forcemain consisting of 4, 6, 8, and 10-inch sized pipe.

ii. Wastewater Pump/Lift Stations

There are 10 Lift stations located throughout the collection system to maximize the gravity sewer. Lift Station #1 located at CSAH 4 & Thrane Drive collects all the sanitary sewer from the city and then pumps all the influent to the WWTF with the exception of The Camping Clusters II Development that pumps separately to the WWTF.

iii. Lift Station #1:

Both pumps were replaced in 2022 with 35 hp pumps. The lift station has been in good operating condition since 1978, when it was installed. The forcemain coming into Lift Station #1 has an existing flow rate of 600 gpm and is designed to run at a maximum of 1,000 gpm. Each pump runs on average 3 hours per day for a total of 6 hours of pump time within daily operating parameters.

iv. Wastewater Treatment Facility

The WWTF consists of one main lift station, 4,485 linear feet of 10-inch forcemain, mechanical bar screen, Parshall Flume, two aerated ponds, three stabilization ponds, chlorination equipment and chlorine tank, spray irrigation equipment, 101.3 acres of forested spray irrigation, and 8 acres of pond dike available for spray irrigation (total 109.3 acres). There is also an 80-acre agricultural site that is in reserve for future irrigation if needed.

The facility is designed to treat a summer average wet weather (AWW) flow of 406,000 gallons per day (gpd) and a winter AWW flow of 199,000 gpd, with a carbonaceous biochemical oxygen demand ($CBOD_5$) strength of 175 milligrams per liter. The pond system consists of two aerated primary ponds and their secondary stabilization ponds. Aerated pond1 and aerated pond 1a each measure 2.6 acres and provide summer and winter combined detention times of 30 and 60 days respectively.

The aerated ponds also have a difference of 4 feet between maximum operating depth and minimum operating depth to provide 34 days of winter storage. Secondary pond 2 measures 10.12 acres with 5 feet of storage, secondary pond 3 measures 5.06 acres with 5 feet of storage, and secondary pond 4 measures 3.96 acres with 8 feet of storage (total of 19.14 acres). The pond system provides a total winter storage of 210 days at 199,000 gpd. Prior to spray irrigation, the treated wastewater is disinfected and then discharged on a controlled basis during the growing season to the spray irrigation sites.

c. Financial Status of Existing Utility System

i. Operation Costs

The wastewater system operates with no long-term debt. The Operations and Maintenance Cost increase each year, based on the flow increase. One of the largest costs in the wastewater budget is the utility cost which is $20,000 or more per year. Combined utility cost is estimated at $30,000 in 2023.

The wastewater system shares staff and about 2.5 Full Time Equivalent (FTE) are attributed to the wastewater system. This includes a 70 percent public works direct, a 50 percent assistant director and other staff.

ii. The history of the Operation and Maintenance Expense is listed below in Table-1

Table-1
Operations and Maintenance History

Audit Reports	**2021**	**2020**	**2019**
Personal Services	$ 197,171	$ 179,620	$ 163,860
Employee Benefits	$ 25,611	$ 36,138	$ 47,792
Professional Services	$ 2,919	$ 83,396	$ 16,425
Utilities	$ 22,952	$ 28,670	$ 34,808

Supplies	$ 23,396	$ 36,630	$ 24,055
Insurance	$ 6,398	$ 8,509	$ 9,214
Other services/Charges	$ 12,644	$ 10,973	$ 8,113
Total Disbursements	$ 291,091	$ 383,936	$ 304,267

iii. Revenue

The City of Breezy Point bills for wastewater services on a quarterly basis, after the quarter is completed. The base rate is $75 per unit, (EDU) or household. There is no water cost, as the City of Breezy Point does not have municipal water and they do not track use.

The fee to connect new users is $3,250. Commercial, or multi family users, are assigned a unit number when they originally hook up. Their hook up rate will then be based on the units they are assigned. i.e., a 10-unit business (ERU's) will be charged $32,250 to hook up.

Large commercial users consist of White Birch, Inc., a development company that owns the hockey arena, clinic, gold courses and a large resort. Another large commercial user is Narveson Properties, a timeshare management firm. Other commercial users include one restaurant, a hardware store, and a gas station.

Current customers who leave for the winter are discouraged from unhooking and re-hooking in the spring, as the rehook up rate is larger than the two quarterly payments.

D. PROJECT NEED

a. Issues and Needs with Existing Utility System

As mentioned in the Introduction, the primary need for this Facility Plan is the City looking proactively at its future flow projections and future WWTF (stabilization ponds and spray irrigation system) capacities.

i. Health, Sanitation and/or Security Concerns

The city has not had any health or sanitation concerns with their system. There have been isolated instances of people hunting foul and small game at the WWTF and has been brought to the attention of Law Enforcement. One improvement requested is to install perimeter fencing and electronic security gate.

ii. Aging Infrastructure

The City's began construction to the WWTF, sanitary sewer system, and control building in 1978. The control building, while still operational, is reaching the end of its lifecycle and has started to deteriorate; replacement should be a priority with any WWTF reconstruction project.

The current budget funds equipment repair and replacement costs. The expected yearly costs range from $20,000 to $100,000 for these repairs. Rehabilitation of two lift stations in 2023 was part of the maintenance program. Some of the larger infrastructure expenses

the city is planning for includes an additional pond, a new wastewater treatment control building, and storage building.

iii. Potential Growth

The DMR's show a growth of approximately 1.09% with a design cap of 74.1 MG. See Appendix D. Further evaluation shows the effluent irrigation values of 85% cap @ 63.3 MG and 100% cap @ 74.1 MG and correlate to years 2035 and 2051 respectively. With the 85% falling within the design period, and the 100% cap falls outside the 20-year design period, this should be monitored closely but no action will be needed at this time. The winter cap of 36.3 reaches the 85th and 100th percentile in 2044 and 2061 respectfully and falls outside the design parameters and doesn't require action at this time.

Using ERU growth history with an ERU design cap at 1604 and existing ERU's used at 1440 leaves 164 ERU's. Referring to Appendix D both the 85th and 100th percentiles fall within the design period. Projecting the ERU's to the design period leaves the need for 200 additional ERUs. There is an 85% winter influent cap in 2044 and with the winter storage capacity being the next critical factor in the growth projections, consideration should be made for the added volume of storage needed. Using 2043 ratio of the projected total influent of 53.07 MG and winter influent of 30.8 MG multiplied by the 2043 projected ERU's at 125 Gal/ERU/day leaves 5.30 MG of additional winter storage needed.

(30.8/53.07) x 200 ERU x 125 GAL/ERU x 365 = 5.30 MG

Developed areas with properties that have existing sanitary sewer and then have former seasonal residents and residents that retire and move to this area, permanently skew the population to ERU ratio which makes growth predictions variable for such situations. The above other predictive approaches should incorporate these occurrences.

E. WASTEWATER PROJECT ALTERNATIVES

After reviewing with Staff on the conditions of the "Headworks" along with yearly operational pond levels, ad after analyzing the previous flow and potential growth information, actual alternatives to consider were rather limited. Thus, we proceeded to what is presented in the "F" Selected Project section, below.

F. SELECTED PROJECT

a. Preliminary Project Design

After review of the data, it is recommended that additional storage be provided to accommodate the volume of influent anticipated to be generated within the design period.

i. As indicated in Appendix D, three design factors fall within the design period (2023 – 2043); 2030 85% ERU = 25 remaining, 2032 ERU capacity = 1604, and 2035 85% Irrigation = 63.3 MG. Falling outside the design period is the 85% Winter Storage in 2044 of 31.1 MG, Winter storage capacity in 2061 of 74.1 MG and Irrigation capacity in 2051 of 74.1 MG. This data shows that the critical path would be ERU capacity with Winter storage capacity being affected by the projected 200 additional ERU's needed in 2043. Using the ratio of Winter Influent/Total Influent for the amount winter storage is need for an additional 200 ERU's at 125 Gal per ERU is approximately 5.3 MG:

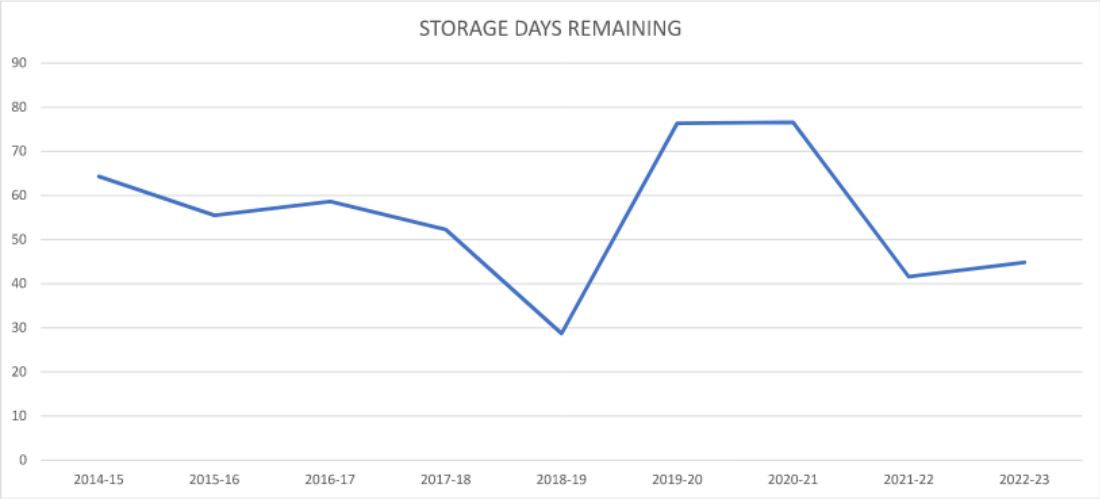
(30.8/53.07) x 200 ERU x 125 GAL/ERU x 365 = 5.30 MG

ii. An additional factor to consider is the difference between the design pond storage and the actual pond storage. Staff had indicated that the storage was starting to near its peak visually towards the end of the winter season. After a field survey, it was determined that the actual storage capacity didn't match the design capacity. The DMR Flow and Storage data were compared. See Figure C below. It shows that the trend for remaining days of storage was headed downward to 29 days in 2018-19 season just before COVID set in where the flow dipped down and additional remaining days of storage increased. In 2022-23 it appears that the trend downward towards lower storage capacity is starting to return back to before COVID days. Pond storage in later winter / early spring can swing somewhat rapidly depending on continued influent, precipitation, and the start of weather that would allow spray irrigation to begin. While this information alone might not provide full justification for a new pond, it is important information to help support the addition of a new storage pond.

Figure C

POND STORAGE SUMMARY

Year	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Average	
DMR Flow	21.60	20.63	22.92	25.28	22.88	19.48	20.26	19.56	19.55	21.35	
DMR Storage	22.16	24.21	25.32	22.16	31.29	19.84	18.75	25.48	25.67	23.87	
Diff	0.56	3.57	2.40	3.12	8.40	0.36	-1.51	5.92	6.11	3.22	
Storage Remaining	12.80	11.04	11.68	10.40	5.71	15.20	15.24	8.28	8.92	11.03	9.10
Avg Winter Flow	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199
Storage Days Remaining	64	55	59	52	29	76	77	42	45	55	45.7



iii. Table 2 below was taken from Appendix E – Pond Storage Capacity – Pond 6 Sizing that shows the difference in volume of 5.2 MG. With the volume of the additional ERU's and the difference in volume of actual versus design, it is shown that a pond should be sized to accommodate those volumes at 10.5 MG. The hydraulic profile for proposed pond #6 can be seem from Appendix B – WWTF Flow Diagram and Hydraulic Profile.

Table 2:

Design vs Actual Pond Volume		
MG	Original MG	Loss MG
2.62	3.26	0.64
2.44	3.26	.82
13.85	16.5	2.65
7.1	8.25	1.15
9.73	9.68	-0.05
35.75	40.95	5.2

iv. The Control Building at the WWTF was constructed in 1978 (45 years) and has reached the end of the life cycle and dated equipment with nothing salvageable. There is also outdated compressor motors for aeration system that are not used and will be replaced with new aerators setup to rotate the primary ponds 1 and 1A. Additional items will

include bar screen, flume, lab space for PH/influent sampling, 2 workspaces, influent measuring devices, rag management, shower/bathroom, kitchenette, fridge, sink.

As noted earlier, security is not installed and proposed perimeter fencing and power gate. Other items include to repair transfer pipe from pond 1A to 1, replace hatches on control manholes with aluminum or plastic hatches, automatic pond measuring equipment along with an irrigation control system that will eventually control the entire system when it is to be upgraded.

The City presently houses equipment for the sewer department in a storage building adjacent to the City Hall that is being repurposed. Ideally, having the sewer equipment housed at the WWTF would be more efficient saving labor and travel time. The storage shed at the WWTF presently is not large enough to house the sewer truck, 50kw generator, jetter trailer, pipe rack, ranger, and various other equipment including 130 hp tractor, and does not have a heated area to work on equipment or work bench.

See Appendix G – Proposed Improvements, for a graphical depiction of most of the Proposed Improvements.

v. As flow increases over time, the spray irrigation area for discharging treated effluent will need to handle more water.

One approach to this is to remove the trees and use a cover crop that would take up more water than trees. Depending on the type of cover crop, there may need to be an investment to plant and harvest.

Another approach, and it may be in conjunction with the previous approach, is to expand the area of spray irrigation. This will require an investment in more irrigation piping and spray heads.

Timewise, as indicate in Appendix D and based on the anticipated growth rate, we are estimating the irrigation system would be at 85% capacity in the year 2035. This would be a time frame to plan improvements. While 11 years seems like a long-time frame now, in the world of public works improvements, this will come up quicker than everyone realizes.

Until specific above approaches, acreages, and details are determined, it is difficult to estimate a project cost. For budget purposes, it will most likely be at least $1 million.

b. Identify and Describe Permit Requirements

i. The City retains ownership for the additional area needed to construct the proposed 4.7-acre pond. Considerations to the long-eared-bat during tree removal will need to be taken, and Storm Water Pollution Prevention Plan (SWPPP) will need to be applied for.

c. Project Cost Estimate

A project cost estimate has been prepared and can be found in Appendix F - WWTP Proposed Improvements Preliminary Estimate.

In dealing with many wastewater system upgrades such as the ones presented in this report over the years, we understand that these kinds of infrastructure improvements cost a lot of money.

For budgeting purposes, we would round off the estimated project costs at $5 million.

Again, this is a Study level estimate. There has not been a final design performed yet. Once a final design is performed, project cost estimates are refined further.

Publicly bidding the improvements is really the only way to find the true cost of such improvements in the infrastructure improvement marketplace.

d. Estimated Annual Operating Budget
We will need to work with Staff and the City's financial consultant on an annual operating budget and these following sections.
   i. Necessary Income
   ii. Proposed (Post-Project) Annual Operation and Maintenance Costs
   iii. Existing and Proposed Debt Repayment
   iv. Reserves

In general, though, the City has been attempting to set aside monies for capital improvements.

G. CONCLUSIONS AND RECOMMENDATIONS

As indicated in Section "F," above, of this Report, we recommend the City initiate budgeting for improvements to the "Headworks" as well as the addition of another pond. This will include ancillary construction items, along with appropriate design phase engineering.

APPENDICES

APPENDIX A
Sanitary Sewer Collection System

WIDSETH
ARCHITECTS ▪ ENGINEERS ▪ SCIENTISTS ▪ SURVEYORS

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JOSEPH DUBEL
DATE: 01/09/2024 LIC. NO. 45500

DATE	REV#	REVISIONS DESCRIPTION	BY

DATE: JANUARY, 2024
SCALE: AS SHOWN
DRAWN BY: NCP
CHECKED BY: JED
JOB NUMBER: 2022-11991

SANITARY SEWER COLLECTION SYSTEM MAP
CITY OF BREEZY POINT
CROW WING COUNTY, MINNESOTA
APPENDIX A

SHEET NO.
APPENDIX A

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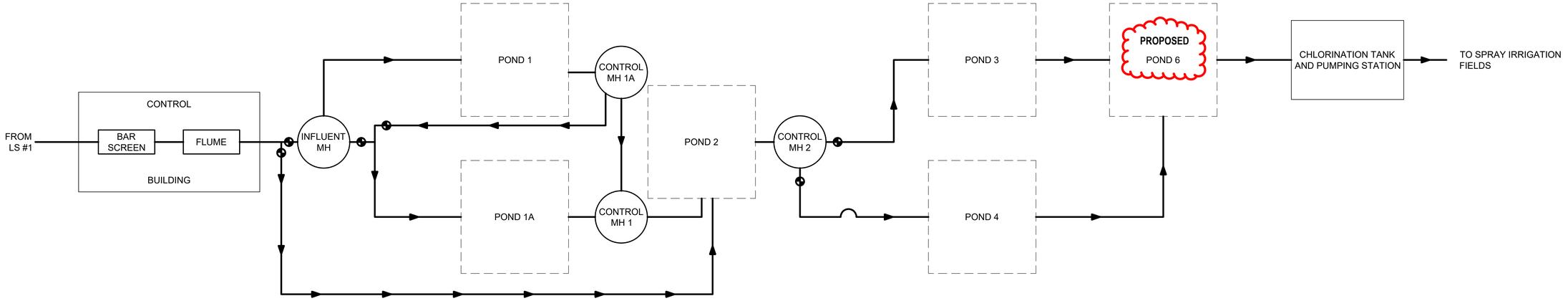
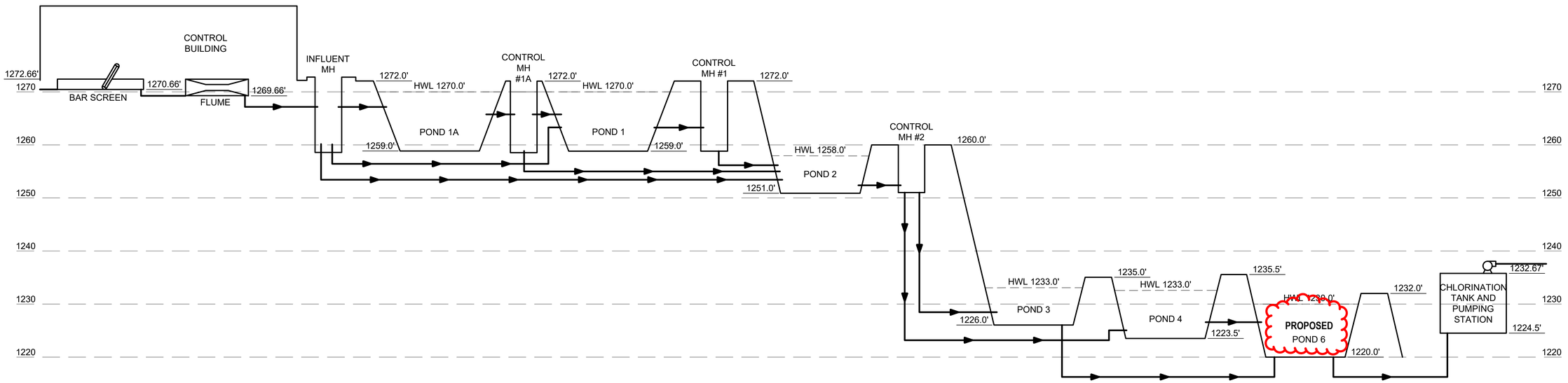
APPENDIX B
WWTF Flow Diagram and Hydraulic

APPENDIX B - WASTEWATER TREATMENT FACILITY
FLOW DIAGRAM AND HYDRAULIC PROFILE



FLOW DIAGRAM
NOT TO SCALE



HYDRAULIC PROFILE
NOT TO SCALE

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Joseph Dukel
Date: 1/10/24
License: 45500

BY	REVISIONS DESCRIPTION	REV#	DATE

DATE: JUNE, 2011
SCALE: NOT TO SCALE
DRAWN BY: M.E.R.
CHECKED BY: M.E.R.
JOB NUMBER 0145B0010.000

2023 WASTEWATER FACILITY STUDY
CITY OF BREEZY POINT
CROW WING COUNTY, MINNESOTA
SYSTEM SCHEMATIC

APPENDIX B

APPENDIX C
Pond Map

POND 1A

POND 1

POND 2

POND 3

POND 4

THRANE DRIVE

SPRAY IRRIGATION FIELDS

NORTH

0 150 300

SCALE (IN FEET)

WIDSETH

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DATE: #### LIC. NO. ####

REV#	DATE	REVISIONS DESCRIPTION	BY

DATE: JANUARY, 2024
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DRAWN BY: NCP
CHECKED BY: NCP
JOB NUMBER: 2022-11991

2023 WASTEWATER FACILITY STUDY
CITY OF BREEZY POINT
CROW WING COUNTY, MINNESOTA

APPENDIX C

SHEET NO.

APPENDIX C

APPENDIX D
Flow, Population, ERUs Estimated Growth

APPENDIX D
ESTIMATED GROWTH
FLOW, POPULATION, ERU'S

			Design 36.3 MG		Design 74.1 MG			WWTP Estimate
		1.09%	1.94%	0.935%	2.077%	4.89%	1.89%	1604
		y = 0.2692x + 41.497	y = 0.3117x + 17.4		y = 0.7029x + 38.659	y = 82.857x + 1035.3	y = 17.301x + 1060.1	Avilable/(Needed)
	Year	Total Influent MG	Winter Influent	Summer Influent	Effluent Irrigation	Total Population	ERU's	ERU's
	1999	36.03	16.13	19.90				
	2000	37.36	14.30	23.06	36.20	979	967	
	2001	44.68	20.73	23.95	44.50	1,063	1,069	
	2002	46.32	21.20	25.12	42.04	1,151	1,106	
	2003	45.60	19.83	25.77	39.55	1,273	1,135	
	2004	43.97	19.74	24.23	27.82	1,373	1,200	
	2005	44.35	20.62	23.73	46.66	1,511	1,200	
	2006	42.15	19.56	22.59	39.22	1,642	1,200	
	2007	42.86	19.77	23.09	41.04	1,664	1,222	
	2008	43.25	19.54	23.71	49.15	1,774	1,230	
	2009	42.05	20.41	21.64	50.50	1,823	1,259	
	2010	44.24	20.74	23.50	47.41	2,346	1,259	
	2011	47.61	22.00	25.61	46.97	2,388	1,282	
	2012	51.09	23.64	27.45	50.50	2,394	1,301	
	2013	44.44	21.59	22.85	54.22	2,406	1,311	
	2014	46.66	20.61	26.05	59.93	2,408	1,320	
	2015	48.56	23.40	25.16	48.73	2,420	1,336	
	2016	49.82	23.24	26.58	54.98	2,436	1,353	
	2017	48.10	23.21	24.89	51.75	2,463	1,358	
	2018	47.18	23.21	23.97	53.92	2,485	1,369	
	2019	46.19	23.32	22.87	57.38	2,500	1,381	
	2020	43.02	23.63	19.39	40.27	2,574	1,410	
	2021	44.47	23.95	20.52	42.33	2,667	1,432	
	2022	46.70	24.26	22.44	58.08	2,858	1,440	164
Design Period	**2023**	**47.69**	**24.57**	**23.12**	**54.83**	**2,941**	**1,458**	**146**
	2024	47.96	24.88	23.08	55.53	3,024	1,475	129
	2025	48.23	25.19	23.03	56.23	3,107	1,493	111
	2026	48.50	25.50	22.99	56.93	3,190	1,510	94
	2027	48.77	25.82	22.95	57.64	3,272	1,527	77
	2028	49.03	26.13	22.91	58.34	3,355	1,545	59
	2029	49.30	26.44	22.86	59.04	3,438	1,562	42
ERU 85%	2030	49.57	26.75	22.82	59.75	3,521	1,579	25
	2031	49.84	27.06	22.78	60.45	3,604	1,596	8
ERU Design Cap	2032	50.11	27.37	22.74	61.15	3,687	1,614	(10)
	2033	50.38	27.69	22.69	61.85	3,770	1,631	(27)
	2034	50.65	28.00	22.65	62.56	3,852	1,648	(44)
Irrigation Cap 85%	2035	50.92	28.31	22.61	63.26	3,935	1,666	(62)
	2036	51.19	28.62	22.57	63.96	4,018	1,683	(79)
	2037	51.46	28.93	22.52	64.67	4,101	1,700	(96)
	2038	51.73	29.24	22.48	65.37	4,184	1,718	(114)

APPENDIX D
ESTIMATED GROWTH
FLOW, POPULATION, ERU'S

			Design 36.3 MG		Design 74.1 MG			WWTP Estimate
		1.09%	1.94%	0.935%	2.077%	4.89%	1.89%	1604
		y = 0.2692x + 41.497	y = 0.3117x + 17.4		y = 0.7029x + 38.659	y = 82.857x + 1035.3	y = 17.301x + 1060.1	Avilable/(Needed)
	Year	Total Influent MG	Winter Influent	Summer Influent	Effluent Irrigation	Total Population	ERU's	ERU's
	2039	52.00	29.56	22.44	66.07	4,267	1,735	(131)
	2040	52.27	29.87	22.40	66.78	4,350	1,752	(148)
	2041	52.53	30.18	22.35	67.48	4,432	1,769	(165)
	2042	52.80	30.49	22.31	68.18	4,515	1,787	(183)
Design Year	**2043**	**53.07**	**30.80**	**22.27**	**68.88**	**4,598**	**1,804**	**(200)**
					(30.8/53.07) x 200 ERU x 125 GAL/ERU x 365 = 5.30			MG
Winter Cap 85%	2044	53.34	31.11	22.23	69.59	4,681	1,821	(217)
	2045	53.61	31.43	22.18	70.29	4,764	1,839	(235)
	2046	53.88	31.74	22.14	70.99	4,847	1,856	(252)
	2047	54.15	32.05	22.10	71.70	4,930	1,873	(269)
	2048	54.42	32.36	22.06	72.40	5,012	1,891	(287)
	2049	54.69	32.67	22.01	73.10	5,095	1,908	(304)
	2050	54.96	32.99	21.97	73.80	5,178	1,925	(321)
Irrigation Cap 100%	2051	55.23	33.30	21.93	74.51	5,261	1,942	(338)
	2052	55.50	33.61	21.89	75.21	5,344	1,960	(356)
	2053	55.76	33.92	21.84	75.91	5,427	1,977	(373)
	2054	56.03	34.23	21.80	76.62	5,510	1,994	(390)
	2055	56.30	34.54	21.76	77.32	5,592	2,012	(408)
	2056	56.57	34.86	21.72	78.02	5,675	2,029	(425)
	2057	56.84	35.17	21.67	78.72	5,758	2,046	(442)
	2058	57.11	35.48	21.63	79.43	5,841	2,064	(460)
	2059	57.38	35.79	21.59	80.13	5,924	2,081	(477)
	2060	57.65	36.10	21.55	80.83	6,007	2,098	(494)
Winter Cap	2061	57.92	36.41	21.50	81.54	6,090	2,115	(511)
	2062	58.19	36.73	21.46	82.24	6,172	2,133	(529)

APPENDIX E
Pond Storage Capacity
Pond 6 sizing

APPENDIX E

POND STORAGE CAPACITY - POND 6 SIZING

Design Conditions

Pond	1	1A	2	3	4	TOTAL
Surface Area	2.60	2.60	10.12	5.06	3.96	24.34
Usable Depth	4.00	4.00	5.00	5.00	7.50	25.50
Acre feet available	10.40	10.40	50.60	25.30	29.70	126.40
MG	3.39	3.39	16.50	8.25	9.68	41.21

Actual Conditions

	Depth from Bottom	Bottom Not Used	Working Depth (WD)	Area Top WD	Area Bottom WD	Acre Feet	MG	Original MG	Loss MG
Pond 1A	10	6	4	2.24	1.78	8.05	2.62	3.26	0.64
Pond 1	10	6	4	2.10	1.65	7.50	2.44	3.26	0.82
Pond 2	7	2	5	9.14	7.87	42.52	13.85	16.5	2.65
Pond 3	7	2	5	4.67	4.04	21.78	7.10	8.25	1.15
Pond 4	10	2.5	7.5	4.55	3.41	29.87	9.73	9.68	-0.05
							35.75	40.95	5.20

Pond 1A	Bottom Pond Elev 1259.40		Pond 1	Bottom Pond Elev 1259.31		Pond 2	Bottom Pond Elev 1250.82
WD	Surface Area		WD	Surface Area		WD	Surface Area
0	51,477	1.2	0	46,080	1.1	0	323,589
1	55,256	1.3	1	50,124	1.2	1	332,098
2	59,552	1.4	2	54,309	1.2	2	342,825
3	63,949	1.5	3	58,580	1.3	3	353,653
4	68,449	1.6	4	62,954	1.4	4	364,583
5	73,050	1.7	5	67,429	1.5	5	375,614
6	77,752	1.8	6	72,006	1.7	6	386,747
7	82,557	1.9	7	76,685	1.8	7	397,980
8	87,462	2.0	8	81,466	1.9		
9	92,470	2.1	9	86,349	2.0		
10	97,579	2.2	10	91,334	2.1		

Pond 3	Bottom Pond Elev 1226.10		Pond 4	Bottom Pond Elev 1222.00		Proposed Pond 6	Bottom Pond Elev 1220.00			
WD	Surface Area		WD	Surface Area		WD	Surface Area	Acre	Acre Feet	MG
0	156,750	3.6	0	133,509	3.1	0	137,000	3.1	0	0.0
1	163,108	3.7	1	139,494	3.2	1	142,986	3.3	3.2	1.0
2	169,572	3.9	2	145,600	3.3	2	149,100	3.4	3.4	1.1
3	176,139	4.0	2.5	148,711	3.4	3	155,342	3.6	3.5	1.1
4	182,808	4.2	3	151,822	3.5	4	161,713	3.7	3.6	1.2
5	189,579	4.4	4	158,152	3.6	5	168,211	3.9	3.8	1.2
6	196,452	4.5	5	164,586	3.8	6	174,837	4.0	3.9	1.3
7	203,428	4.7	6	171,122	3.9	7	181,591	4.2	4.1	1.3
			7	177,760	4.1	8	188,473	4.3	4.2	1.4
			8	184,499	4.2	9	195,483	4.5	4.4	1.4
			9	191,341	4.4	10	202,622	4.7	4.6	1.5
			10	198,285	4.6					10.48
										Design MG
										10.50

APPENDIX F
WWTP Proposed Improvements
Preliminary Estimate

Appendix F - WWTP Proposed Improvements Preliminary Estimate

Item No.	Description	Unit	Quantity	Unit Price	Total
	General/Controls/Allowances				
1	Mobilization, Bonding, Insurance, Administrative (9%)	Lump Sum	1	$218,000.00	$218,000.00
2	Erosion Control Supervisor	Lump Sum	1	$1,500.00	$1,500.00
3	Rock Construction Access	Each	1	$2,500.00	$2,500.00
4	Silt Fence, Type MS	Lin. FT.	2,500	$4.50	$11,250.00
5	Site Restoration	Acre	10	$6,000.00	$60,000.00
6	Bio-Solids Removal - Existing Ponds Allowance	Gallon	500,000	$0.10	$50,000.00
7	Remove Existing Cell #1 Aeration System	Lump Sum	1	$8,000.00	$8,000.00
8	Salvage Existing Cell #1A Aerators	Each	6	$15,000.00	$90,000.00
9	Install Primary Cell 1 & 1A Aerators	Each	12	$15,000.00	$180,000.00
10	Clearing and Grubbing	Acre	7.0	$4,500.00	$31,500.00
11	Savage Existing Irrigation Turbine-Pumps	Each	2	$15,000.00	$30,000.00
12	Demo Existing Irrigation Structure	Each	1	$8,000.00	$8,000.00
13	Demo Existing Control Building	Each	1	$15,000.00	$15,000.00
14	Demo Existing Storage Structure	Each	1	$10,000.00	$10,000.00
15	Aggregate Surfacing, Class 5	Cu. Yd.	350	$35.00	$12,250.00
16	Bituminous Pavement	Ton	200	$125.00	$25,000.00
17	Aggregate Pavement Base Course, Class 5	Cu. Yd.	100	$35.00	$3,500.00
18	Aggregate Pavement Geotextile Fabric, Type 5	Sq. Yd.	300	$4.50	$1,350.00
19	Replace Existing Splitter Structure	Each	1	$45,000.00	$45,000.00
20	Aerators	Each	12	$10,000.00	$120,000.00
21	Common Excavation (P)	Cu. Yd.	45,000	$4.00	$180,000.00
22	Compact Pond Bottom	Each	1	$25,000.00	$25,000.00
23	Compaction and Material Testing	Each	20	$750.00	$15,000.00
24	Select Granular Fill Screened- PVC liner Bedding and Cover Material	Cu. Yd.	8,500	$15.00	$127,500.00
25	Synthetic Membrane Liner (40 Mill PVC)	Sq. Yd.	25,700	$7.50	$192,750.00
26	Geotextile Filter, Type III	Sq. Yd.	6,000	$3.00	$18,000.00
27	Riprap - MPCA Gradation	Cu. Yd.	1,770	$90.00	$159,300.00
28	Topsoil Excavation and Stockpile	Cu. Yd.	11,000	$3.00	$33,000.00
29	Place 9" Salvaged Topsoil	Cu. Yd.	11,000	$4.00	$44,000.00
30	Inlet/Outlet Concrete Base Pads	Each	2	$5,000.00	$10,000.00
31	Pond 5 Influent - 12" PVC/HDPE	Lin. FT.	210	$75.00	$15,750.00
32	Pond 5 Effluent - 12" C900 PVC/HDPE	Lin. FT.	150	$75.00	$11,250.00
33	Pond 5 Irrigation Control Structure with Chlorination Tank	Each	1	$45,000.00	$45,000.00
34	12" DIP Miscellaneous Piping	Lin. FT.	400	$200.00	$80,000.00
35	6" Gate Valve Irrigation	Lin. FT.	1	$2,500.00	$2,500.00
36	12" Gate Valve	Lin. FT.	5	$6,000.00	$30,000.00
37	Temporary Well for Cell Prefilling	Each	1	$20,000.00	$20,000.00
38	Water Balance Test	Each	1	$40,000.00	$40,000.00
39	6" Spray Irrigation Supply Piping	Lin. FT.	1,100	$75.00	$82,500.00
40	Existing Blower System Demolition	Lump Sum	1	$5,000.00	$5,000.00
41	Existing Control Building Demolition	Lump Sum	1	$20,000.00	$20,000.00
42	Existing Storage Building Demolition	Lump Sum	1	$10,000.00	$10,000.00
43	Control Building	SqFt	1,500	$175.00	$262,500.00
44	Storage Building (heated)	Lump Sum	8,225	$75.00	$616,875.00
45	Vertical Turbine Irrigation Pumps with VFD's	Each	2	$45,000.00	$90,000.00
46	Irrigation Mag Meter	EACH	1	$35,000.00	$35,000.00
47	Perimeter Fencing	Lin. FT.	9,400	$15.00	$141,000.00
48	Power Security Gate	Lump Sum	1	$15,000.00	$15,000.00
49	New 400 AMP Three Phase Electrical Service	Lump Sum	1	$35,000.00	$35,000.00
50	Irrigation Control System Modifications and Wiring	Lump Sum	1	$40,000.00	$40,000.00
SUBTOTAL CONSTRUCTION					**$3,324,775.00**

CONSTRUCTION CONTINGENCY (20%)	**$665,000.00**
PERMITS (0.5%)	**$17,000.00**
PLANS & SPECIFICATIONS (8%)	**$266,000.00**
CONSTRUCTION ADMINISTRATION /STARTUP/O&M MANUAL (10%)	**$332,000.00**
GEOTECHNICAL ENGINEERING / SOIL BORINGS (.5%)	**$17,000.00**
ADMINISTRATION / LEGAL (1.0%)	**$33,000.00**

ESTIMATED TOTAL CONSTRUCTION COST	**$4,654,775.00**

APPENDIX G
Proposed Improvements

irrigation pumping structure

4.71 ac

New Mixers with automatic control system

8,225 sf

Thrane Dr

Thrane Dr

Demo existing garage and replace with new equipment Storage and heated shop building

Bituminous Drive

Demo and Replace Control Building
Bar Screen, Flume with transducer flow metering, irrigation control system, mixer-aeration control system, laboratory, bathroom

WIDSETH
ARCHITECTS ▪ ENGINEERS ▪ SCIENTISTS ▪ SURVEYORS

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED #### UNDER THE LAWS OF THE STATE OF ####

DATE: #### LIC. NO.

REVISIONS DESCRIPTION BY

DATE REV#

DATE: MAY 2024
SCALE: AS SHOWN
DRAWN BY: ####
CHECKED BY: ####
JOB NUMBER: 2022-11991

2023 WASTEWATER FACILITY STUDY
CITY OF BREEZY POINT
CROW WING COUNTY, MINNESOTA
APPENDIX G - PROPOSED IMPROVEMENTS

SHEET NO.
APPENDIX G

APPENDIX H
Environmental Information Worksheet

WiDSETH

Alexandria
610 Fillmore Street
Alexandria MN 56308

320.762.8149
Alexandria@Widseth.com
Widseth.com

ENVIRONMENTAL INFORMATION WORKSHEET

FOR

WASTEWATER FACILITY & SEWER SYSTEM EXPANSION

CITY OF BREEZY POINT, MINNESOTA

Prepared for:

CITY OF BREEZY POINT
ATTN: DAVID CHANSKI, CITY ADMINISTRATOR
8319 COUNTY RD 11
BREEZY POINT, MN 56472

January 2024

WIDSETH No. 2022-11991

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ENVIRONMENTAL INFORMATION WORKSHEET

FOR

WASTEWATER FACILITY & SEWER SYSTEM EXPANSION

CITY OF BREEZY POINT

JANUARY 2024

Prepared By:

Widseth
610 Fillmore Street
Alexandria, Minnesota 56308

Widseth Project No. 2022-11991

Certification:

I hereby certify that this report was prepared by me or under my direct supervision and that, to the best of my knowledge, the information provided is complete and accurate.

Signature: Daniel P. McInnis

Dan McInnis, Environmental Scientist

Widseth

Date: 01/15/2024

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

Environmental Information Worksheet (EIW) form

Clean Water State Revolving Fund Program

Minnesota Rule Chapter 7077.0272, subp. 2.a.F.
Minnesota Rule Chapter 7077.0277, subp. 3.E.

Doc Type: Wastewater Point Source

Eligible applicants seeking funds for clean water (stormwater and wastewater) projects through the Clean Water State Revolving Fund (commonly referred to as the CWSRF Program) are required by Minn. R. ch. 7077.0272, subp. 2.a. F. and Minn. R. ch. 7077.0277, subp. 3.E., to complete an Environmental Information Worksheet (EIW). This information will be used to assess environmental impacts, if any, caused by the project.

Questions: Contact Review Engineer or Bill Dunn at 651-757-2324 or bill.dunn@state.mn.us.

1. Project title: Wastewater Facility & Sewer System Expansion

2. Proposer: City of Breezy Point

Contact person: David Chanski

Title: City Administrator

Address: 8319 County Rd 11

Breezy Point, MN 56472

Phone: 218-569-1001

Fax: N/A

3. Project location: County: Crow Wing City/Twp: Breezy Point

___ 1/4 ___ 1/4 Section: 20, 21, 29 Township: 136N Range: 28W

Tables, Figures, and Appendices attached to the EIW:

- County map showing the general location of the project;
- United States Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable);
- Site plan showing all significant project and natural features.

4. Description:

a. Provide a project summary of 50 words or less.

The City of Breezy Point is proposing to expand their wastewater treatment facility (WWTF) to meet projected increases in demand. The proposed expansion will include construction of a new aerated stabilization cell and additional spray irrigation fields on 80 acres directly west and north of the existing cells.

b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.

The City of Breezy Point in Crow Wing County (Figure 1) owns and operates a WWTF that utilizes a series of ponds to treat municipal wastewater to the point that it is suitable for disposal via forested spray irrigation fields adjacent to the ponds on City-owned property. The City's facility totals 263.7 acres and presently includes two aerated primary ponds (with a total area of 5.2 acres), three secondary stabilization ponds (total of 19.14 acres), 109.3 acres equipped for spray irrigation, and another 80 acres of land set aside for future expansion. The remaining area is a mix of lawn/landscaping, impervious surfaces, wetlands, and vacant land (forested and brush/grassland areas). The City is proposing to increase the treatment capacity of their WWTF through construction of a new aerated stabilization cell and additional spray irrigation fields to meet projected increases in demand and maintain compliance with discharge standards. The proposed Project Area is shown on Figure 2.

c. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

The current WWTF is beginning to near its capacity. According to the City's 2020 Comprehensive Plan, the population of Breezy Point grew by 3.8 percent from 2010 to 2020, and the City is expected to continue on this upward population trend. Wastewater flows generally correlate with increases in population. In order to continue operating and not exceed maximum capacity, the City of Breezy Point is looking to expand their WWTF to allow for future population growth within the City.

d. Are future stages of this development including development on any outlots planned or likely to happen? ☐ Yes ☒ No
If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

e. Is this project a subsequent stage of an earlier project? ☐ Yes ☒ No
If yes, briefly describe the past development, timeline and any past environmental review.

5. Project magnitude data

Total Project Area (acres) 263.7 or Length (miles) _____
Number of Residential Units: Unattached _____ Attached _____ maximum units per building _____
Commercial/Industrial/Institutional Building Area (gross floor space): total square feet 1501
Indicate area of specific uses (in square feet): _____

Office		Manufacturing	
Retail		Other Industrial	1501 (garage & pumphouse)
Warehouse		Institutional	
Light Industrial		Agricultural	
Other Commercial (specify)			

Building height _____ If over 2 stories, compare to heights of nearby buildings _____

6. Permits and approvals required. List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans, and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure.

Unit of government	Type of application	Status
MPCA	NPDES/SDS Construction Stormwater Permit	To be completed
MPCA	Modification of SDS permit	To be completed
USACE	Section 404 permit	To be completed
BWSR	Joint Application Form for Activities Affecting Water Resources in MN	To be completed

7. Land use. Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

As shown in Figure 3, current land use includes two aerated stabilization cells (Ponds 1 & 1A), three storage ponds (Ponds 2-4), forested spray irrigation fields, and vacant land.

8. Cover types. Estimate the acreage of the site with each of the following cover types before and after development:

	Before	After		Before	After
Types 1-8 wetlands	17.19	TBD	Lawn/landscaping	21.51	TBD
Wooded/forest	111.29	TBD	Impervious Surfaces	1.99	TBD
Brush/grassland	87.38	TBD	Other (describe)	24.34 (ponds)	TBD

Cropland	0	TBD			
			Total	263.7	263.7

9. Fish, wildlife, and ecologically sensitive resources.

a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.

The USFWS's Information for Planning and Consultation (IPaC) system was utilized to determine if the Project has potential to negatively impact threatened or endangered species which are protected by the Endangered Species Act of 1973. The proposed Project received determinations of "no effect" or "not likely to adversely affect" for each of the threatened/endangered species listed as possibly occurring within the project area. No critical habitats for endangered or threatened species were identified within the project area. The IPaC species list and determination letters are included as Appendix A.

Forest habitat will be cleared for the construction of the WWTF pond and to increase efficiency of the spray irrigation fields, where it will be replaced by a cover crop. Only necessary trees that are in the immediate vicinity of the WWTF pond will be removed to create space for the pond. During construction, contractor will be required to control stormwater erosion to avoid impacts to any water bodies nearby.

b. Are any state (endangered or threatened) species, rare plant communities or other sensitive ecological resources such as native prairie habitat, colonial waterbird nesting colonies or regionally rare plant communities on or near the site?
☒ Yes ☐ No
If yes, describe the resource and how it would be affected by the project. Indicate if a site survey of the resources has been conducted and describe the results. If the Minnesota Department of Natural Resources (DNR) Natural Heritage and Nongame Research program has been contacted give the correspondence reference number: 2023-00489
Describe measures to minimize or avoid adverse impacts.

The Minnesota Department of Natural Resources National Heritage Review was received on August 31, 2023 (Appendix B). The Project Area falls within a Minnesota Biological Survey (MBS) Site of High Biodiversity Significance (Upper Cullen Lake; see Figure 4). In order to minimize disturbances to this ecologically significant area, some preventative actions need to be taken. Actions to minimize disturbance include:

1. minimizing vehicular disturbances in the MBS Site.

2. preventing parking of equipment or stockpiling supplies in undeveloped or unmaintaind parts of the MBS site.

3. preventing placement of spoil in undeveloped or unmaintained parts of the MBS site

4. Conduct work on frozen ground conditions

5. Use best management practices to prevent erosion and sediment control

6. Inspect and clean all equipment prior to bring it to the site to prevent the introduction and spread of invasive species

7. As much as possible, operate within already-disturbed areas

8. Revegetate disturbed soil with native species suitabale to the local habitat as soon after construction as possible.

9. Use only weed free mulches, topsoils, and seed mixes. Of particular concern are birdsfeet trefoil (Lotus corniculatus) and crown vetch (Coronilla varia), two invasive species that are sold commercially and are problematic in prairies and disturbed open areas.

Additionally, the project has the potential to impact Blanding's turtles (Emydoidea blandingii), a state-listed threatened species, through habitat disturbance/destruction due to construction activities. An avoidance plan is required and must provide a description of the project activities and construction methods, identify measures that will be taken to avoid take and minimize disturbance to the species, and include a map of disturbance areas.

10. Physical impacts on water resources. Will the project involve the physical or hydrologic alteration (dredging, filling, stream diversion, outfall structure, diking, and impoundment) of any surface waters such as a lake, pond, wetland, stream or drainage ditch? ☐ Yes ☒ No
If yes, identify water resource affected. Describe alternatives considered and proposed mitigation measures to minimize impacts. Give the DNR Protected Waters Inventory (PWI) number(s) if the water resources affected are on the PWI.

11. Water use. Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)? ☐ Yes ☒ No
If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

12. Water-related land use management districts. Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district? ☒ Yes ☐ No
If yes, identify the district and discuss project compatibility with district land use restrictions.

The southeastern corner of the spray irrigation fields lies within a shoreland buffer zone. Treated water used in spray irrigation may run off through natural drainageways before discharge to surface waters according to the standards in Article 41 of the Crow Wing County Land Use Ordinance. WWTF impervious surface coverage does not exceed allowed amounts.

13. Water surface use. Will the project change the number or type of watercraft on any water body? ☐ Yes ☒ No
If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

14. Erosion and sedimentation. Give the acreage to be graded or excavated and the cubic yards of soil to be moved: **2.6** Acres: **26417** cubic yards. Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

Soils within the project area consist of four types: Eutrudepts, Graycalm, Rollins, and Rifle (Appendix C). Of these, the sandy Eutrudepts and Rollins soils have a severe erosion hazard rating due to steep slopes (10 to 20 percent) and high erodibility. These areas are shown in orange on the map in Appendix D. To prevent erosion to the extent practical, the Contractor will be required to remain in compliance with erosion and sediment control measures included in the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit. Silt fence, sediment control logs, and other best management practices (BMPs) will be used to contain sediment onsite.

15. Water quality – surface-water runoff.

a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any storm water pollution prevention plans.

There is potential for site runoff during construction and from the irrigation fields after the completion of the Project. Silt fencing, sediment control logs, and other BMPs will be used to prevent impacts to wetlands and surface waters as a result of stormwater runoff from the construction site. All disturbed areas will be restored to preconstruction conditions in a timely manner per MPCA regulations. In order to prevent large amounts of runoff, the irrigation equipment will be closely monitored. A Stormwater Pollution Prevention Plan (SWPPP) will be developed for the proposed improvements during the design phase of the proposed Project.

b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.

The lakes in the immediate vicinity are Pelican Lake and Upper Cullen Lake. Upper Cullen Lake appears to be at a higher elevation then the Project Area. Pelican Lake appears to be at the same elevation as the Project. Because Pelican Lake is at a lower elevation than Upper Cullen Lake, it is expected that Pelican Lake will be the main receiving water body from the Project.

The impact from runoff from the Project Area is anticipated to be insignificant due to the topography of the site, location in relation to the nearest waterbody and the establishment of vegetation onsite as quickly as possible.

16. Water quality – wastewater.

a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

This Project includes improvements to the publicly owned City of Breezy Point wastewater system. Wastewater flow from the cities collection system to the WWTF is normal municipal domestic and commercial wastewater, there is no unusual wastewater produced in the city.

b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies, and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.

The existing liquid treatment train includes two aerated ponds followed by three storage ponds. These five ponds can be configured to be used in series or in parallel with each other. Upon receipt by the facility, larger solids are removed by a mechanically-cleaned bar screen and flow is measured by a Parshall flume. The treated wastewater is transferred to a chlorination tank and pumping station before being discharged to forested spray irrigation fields.

The WWTF has met discharge criteria as set forth in the City's National Pollutant Discharge Elimination System (NPDES) permit. Previous water quality data from a network of seven groundwater monitoring wells throughout the spray irrigation area show that the facility is functioning properly with high quality effluent used for irrigation.

c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.

The existing public owned WWTF is nearing its capacity. The proposed expansion to the current WWTF will be designed to treat the projected wastewater flows following the improvements to the system.

d. If the project requires disposal of liquid animal manure, describe disposal technique and location and discuss capacity to handle the volume and composition of manure. Identify any improvements necessary. Describe any required setbacks for land disposal systems.

N/A

17. Geologic hazards and soil conditions.

a. Approximate depth (in feet) to Groundwater *2.5* minimum; *5* average.
Bedrock: *200* minimum; *310* average.

Describe any of the following geologic site hazards to groundwater and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.

There are no known geological hazards near the proposed Project Area.

b. Describe the soils on the site, giving U.S. Soil Conservation Service (SCS) classifications, if known. Discuss soil granularity and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.

A soils map from the NRCS Web Soil Survey website is attached (Appendix C). The soils in the proposed Project Area are mostly loamy sands and muck soils. The soils are in hydrologic soil group A (moderately course to course texture, with a high rate of water transmission), hydrologic soil group C (moderately fine to fine texture with a slow rate of water transmission), and hydrologic soil group A/D (very slow rate of water transmission for undrained areas). The contractor will be required to follow all MPCA requirements for fueling and any hazardous materials and liquid handling.

18. Solid wastes, hazardous wastes, storage tanks.

a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

N/A

b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating groundwater. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.

N/A

c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

N/A

19. Traffic. Parking spaces added: *0* Existing spaces (if project involves expansion): *0*
Estimated total average daily traffic generated: *0* Estimated maximum peak hour traffic generated (if known) and its timing: *0* Provide an estimate of the impact on traffic congestion affected roads and describe any traffic improvements necessary. If the project is within the Twin Cities metropolitan area, discuss its impact on the regional transportation system.

The proposed Project will not impact existing traffic patterns after completion of construction. During the construction phase of this Project there will be temporary traffic impacts, The layout of the streets near the Project Area will allow for detours to be created around the Project Area.

20. Vehicle-related air emissions. Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts. Note: If the project involves 500 or more parking spaces, consult *Environmental Assessment Worksheet (EAW) Guidelines* about whether a detailed air

quality analysis is needed.

N/A

21. Stationary source air emissions. Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult *EAW Guidelines* for a listing), any greenhouse gases (such as carbon dioxide, methane, and nitrous oxides), and ozone-depleting chemicals (chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.

N/A

22. Odors, noise, and dust. Will the project generate odors, noise or dust during construction or during operation? ☒ Yes ☐ No

If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

Construction activities are expected to generate noise and have the potential for dust. The contractor will be required to use best management practices and construction activities will be limited to daylight hours to mitigate noise and dust impacts.

Waste water treatment facilities have the potential for short term odor impacts during the spring. The waste water treatment ponds will be set back from residences and populated areas to avoid odor impacts.

23a. Nearby resources. Are any of the following resources on or in proximity to the site? Projects should search the Minnesota State Historic Preservation Office's (SHPO) National Register of Historic Places database.

***Note:** Project proposers must contact the SHPO at datarequestshpo@mnhs.org to request a database review to obtain information on any known historical or archaeological sites in the project area. Include a copy of correspondence with SHPO with the submittal of this EIW form.

a. Archaeological, historical, or architectural resources? ☒ Yes ☐ No
b. Prime or unique farmlands or land within an agricultural preserve? ☐ Yes ☒ No
c. Designated parks, recreation areas, or trails? ☐ Yes ☒ No
d. Scenic views and vistas? ☐ Yes ☒ No
e. Other unique resources? ☐ Yes ☒ No

If yes, describe the resource and identify any project-related impacts on the resources. Describe any measures to minimize or avoid adverse impacts.

SHPO database review identified one archaeological site and four historic properties in Section 21, Township 136N, Range 28W, and an additional two archaeological sites and thirteen historic properties in Section 28, Township 136N, Range 28W, which borders the Project Area to the southeast (Appendix E). Review of a Phase I Cultural Resources Investigation that was previously completed in 2008 for proposed improvements to County State Aid Highway (CSAH) 4 in Crow Wing County yielded the following conclusions:

1. Archaeological sites 21CW275 and 21CW277 do not meet National Registry of Historic Places (NRHP) significance criteria and were recommended as not eligible for listing in the NRHP. Site 21CW276 was recommended as potentially eligible for listing in the NRHP; however, this site is located approximately 0.55 miles east of the WWTF and would not be disturbed by the proposed expansion.

2. Historic properties consist primarily of summer cabins with no significant connection to any historical event, person, or trend. The cabins are also not architecturally distinguished in any way. These elements make them not eligible for listing in the NRHP. One commercial building (29073 CR 18), formerly the Edgewater Club, is also not eligible for listing in the NRHP.

Based on the NRHP status of the archaeological sites/historic properties and/or their proximity to the WWTF Project Area, no adverse impacts are anticipated as a result of the proposed expansion. No other unique resources were identified in close proximity to the Project Area.

23b. Section 106 Review (36 CFR 800) is required for all CWRF projects. The following forms can be found on the MPCA Wastewater and Stormwater Financial Assistance website at https://www.pca.state.mn.us/ppl. Select Clean Water Revolving Fund tab; then scroll to Facilities Plan and Facilities Plan Supplement for Wastewater Treatment Systems heading.

a. Project is exempt from review (attach completed *Exemption Checklist*) ☐ Yes ☒ No
b. Project is required to complete further Section 106 Review: ☒ Yes ☐ No
    a. SHPO
    b. Tribal consultation
    c. Other Consulting parties

24. Visual impacts. Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks? ☐ Yes ☒ No

If yes, explain.

25. Compatibility with plans and land use regulations. Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency? ☐ Yes ☒ No

If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

26. Impact on infrastructure and public services. Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project? ☐ Yes ☒ No

If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW; see *EAW Guidelines* for details.)

27. Cumulative impacts. Minn. R. 4410.1700, subp. 7, item B requires that the RGU consider the "cumulative potential effects of related or anticipated future projects" when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative impacts. Describe the nature of the cumulative impacts and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to cumulative impacts (or discuss each cumulative impact under appropriate item(s) elsewhere on this form).

The Project is a one time expansion of an existing WWTF. There is no cumulative impacts expected with this Project in the forseeable future.

28. Other potential environmental impacts. If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.

No other adverse environmental impacts are anticipated within the scope of the Project.

29. Summary of issues. List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

No impacts that are listed above are anticipated to require additional investigation before the Project is begun.

Figures

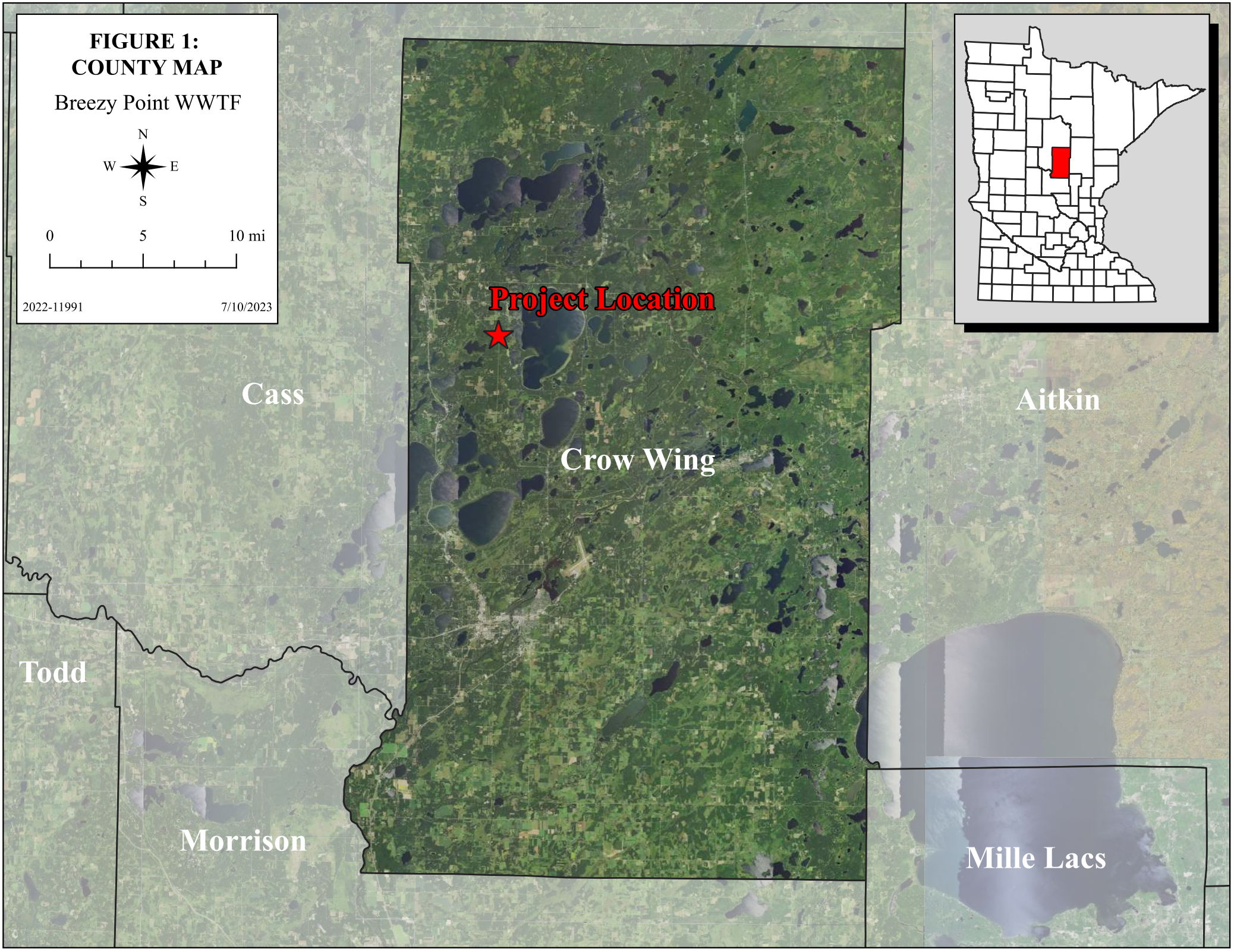
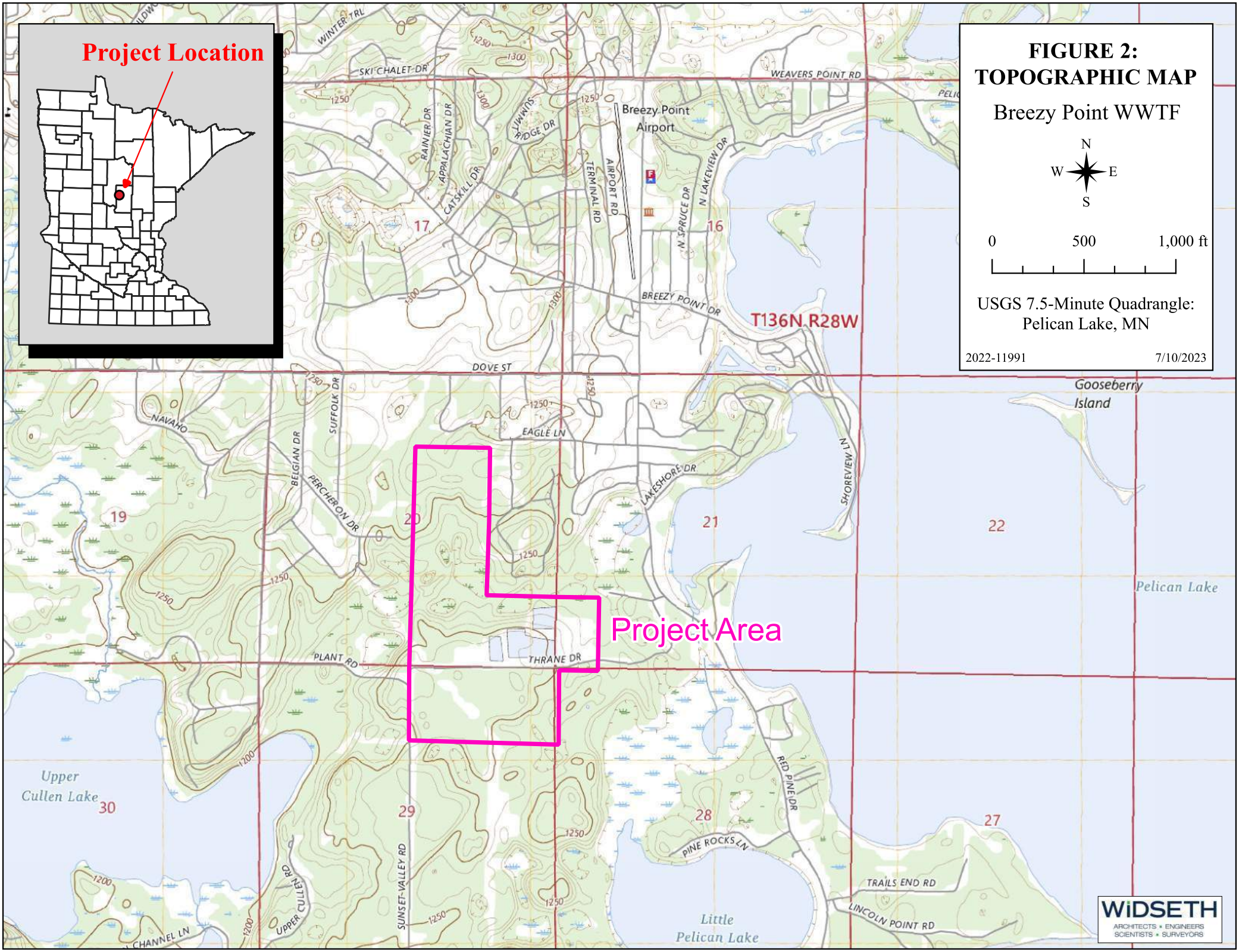
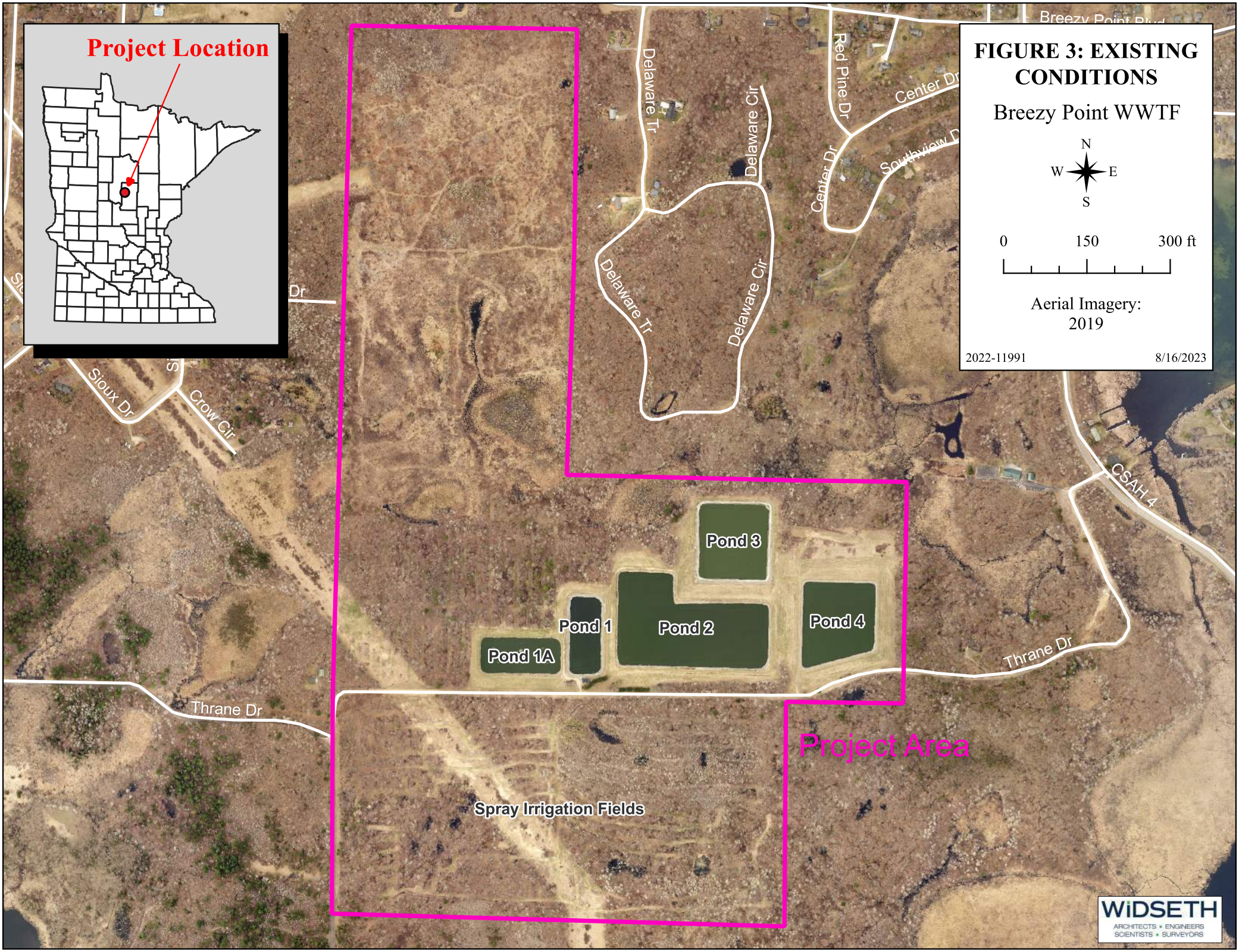


FIGURE 1:
COUNTY MAP
Breezy Point WWTF
N
W
E
S
0
5
10 mi
2022-11991
7/10/2023
Project Location
Cass
Crow Wing
Aitkin
Todd
Morrison
Mille Lacs


Project Location
FIGURE 2:
TOPOGRAPHIC MAP
Breezy Point WWTF
N
W
E
S
0
500
1,000 ft
USGS 7.5-Minute Quadrangle:
Pelican Lake, MN
2022-11991
7/10/2023
Project Area
T136N R28W
Breezy Point Airport
WEAVERS POINT RD
SKI CHALET DR
WINTER TRL
RAINIER DR
APPALACHIAN DR
CATSKILL DR
SUMMIT RIDGE DR
TERMINAL RD
AIRPORT RD
N SPRUCE DR
N LAKEVIEW DR
BREEZY POINT DR
DOVE ST
EAGLE LN
NAVAHO
SUFFOLK DR
BELGIAN DR
PERCHERON DR
LAKESHORE DR
SHOREVIEW LN
Gooseberry Island
Pelican Lake
PLANT RD
THRANE DR
RED PINE DR
PINE ROCKS LN
TRAILS END RD
LINCOLN POINT RD
SUNSET VALLEY RD
UPPER CULLEN RD
CHANNEL LN
Upper Cullen Lake
Little Pelican Lake
16
17
19
20
21
22
27
28
29
30
1250
1300
1200
WiDSETH
ARCHITECTS • ENGINEERS
SCIENTISTS • SURVEYORS


Project Location
FIGURE 3: EXISTING CONDITIONS
Breezy Point WWTF
N
W
E
S
0
150
300 ft
Aerial Imagery:
2019
2022-11991
8/16/2023
Delaware Tr
Delaware Cir
Red Pine Dr
Center Dr
Southview Dr
Sioux Dr
Crow Cir
CSAH 4
Thrane Dr
Pond 1A
Pond 1
Pond 2
Pond 3
Pond 4
Project Area
Spray Irrigation Fields
WiDSETH
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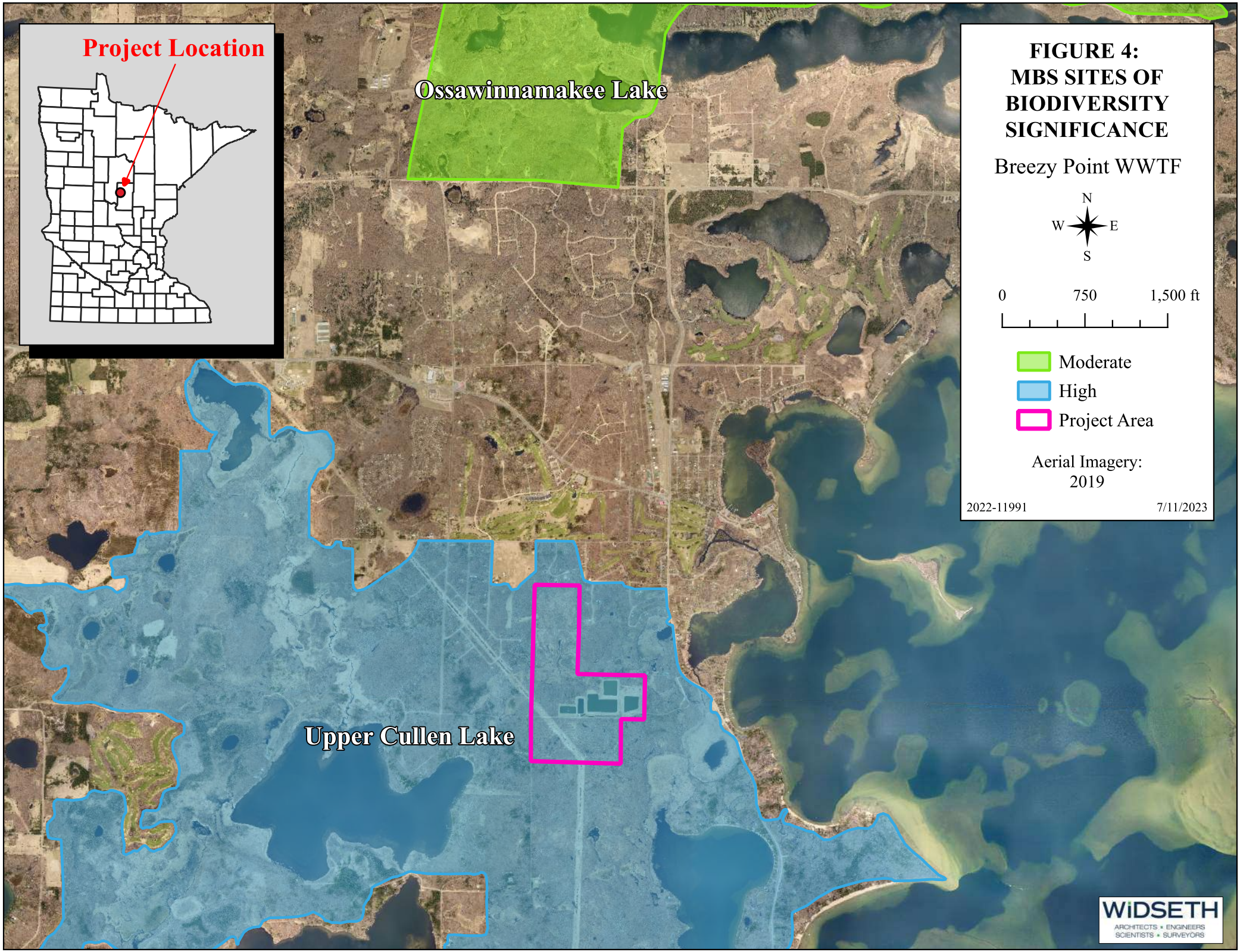
Project Location
Ossawinnamakee Lake
Upper Cullen Lake
FIGURE 4:
MBS SITES OF
BIODIVERSITY
SIGNIFICANCE
Breezy Point WWTF
N
W
E
S
0
750
1,500 ft
Moderate
High
Project Area
Aerial Imagery:
2019
2022-11991
7/11/2023
WiDSETH
ARCHITECTS • ENGINEERS
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Appendix A

IPaC

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
Phone: (952) 858-0793 Fax: (952) 646-2873

In Reply Refer To: June 27, 2023
Project Code: 2023-0098418
Project Name: Breezy Point WWTF Expansion

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

Threatened and Endangered Species
The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS IPaC system by completing the same process used to receive the enclosed list.

Consultation Technical Assistance
Please refer to refer to our Section 7 website for guidance and technical assistance, including step-by-step instructions for making effects determinations for each species that might be present and for specific guidance on the following types of projects: projects in developed areas, HUD, CDBG, EDA, USDA Rural Development projects, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

We recommend running the project (if it qualifies) through our **Minnesota-Wisconsin Federal Endangered Species Determination Key (Minnesota-Wisconsin ("D-key"))**. A demonstration video showing how-to access and use the determination key is available. Please note that the Minnesota-Wisconsin D-key is the third option of 3 available d-keys. D-keys are tools to help Federal agencies and other project proponents determine if their proposed action has the potential to adversely affect federally listed species and designated critical habitat. The Minnesota-Wisconsin D-key includes a structured set of questions that assists a project proponent in determining whether a proposed project qualifies for a certain predetermined consultation outcome for all federally listed species found in Minnesota and Wisconsin (except for the northern long-eared bat- see below), which includes determinations of “no effect” or “may affect, not likely to adversely affect." In each case, the Service has compiled and analyzed the best available information on the species’ biology and the impacts of certain activities to support these determinations.

If your completed d-key output letter shows a "No Effect" (NE) determination for all listed species, print your IPaC output letter for your files to document your compliance with the Endangered Species Act.

For Federal projects with a “Not Likely to Adversely Affect” (NLAA) determination, our concurrence becomes valid if you do not hear otherwise from us after a 30-day review period, as indicated in your letter.

If your d-key output letter indicates additional coordination with the Minnesota-Wisconsin Ecological Services Field Office is necessary (i.e., you get a “May Affect” determination), you will be provided additional guidance on contacting the Service to continue ESA coordination outside of the key; ESA compliance cannot be concluded using the key for “May Affect” determinations unless otherwise indicated in your output letter.

Note: Once you obtain your official species list, you are not required to continue in IPaC with d-keys, although in most cases these tools should expedite your review. If you choose to make an effects determination on your own, you may do so. If the project is a Federal Action, you may want to review our section 7 step-by-step instructions before making your determinations.

Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **no effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see below) – then project proponents must determine if proposed activities will have **no effect** on or **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain Life History Information for Listed and Candidate Species on our office website. If no impacts will occur to a species on the IPaC species list (e.g., there is no habitat present in the project area), the appropriate determination is **no effect**. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

3. Should you determine that project activities **may affect** any federally listed, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

Northern Long-Eared Bats
Northern long-eared bats occur throughout Minnesota and Wisconsin and the information below may help in determining if your project may affect these species.

This species hibernates in caves or mines only during the winter. In Minnesota and Wisconsin, the hibernation season is considered to be November 1 to March 31. During the active season (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥3 inches dbh for northern long-eared bat that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas,
- Trees found in highly developed urban areas (e.g., street trees, downtown areas),
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees, and
- A monoculture stand of shrubby vegetation with no potential roost trees.

If IPaC returns a result that northern long-eared bats are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** this species **IF** one or more of the following activities are proposed:

- Clearing or disturbing suitable roosting habitat, as defined above, at any time of year,
- Any activity in or near the entrance to a cave or mine,
- Mining, deep excavation, or underground work within 0.25 miles of a cave or mine,
- Construction of one or more wind turbines, or
- Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on the northern long-eared bat. Concurrence from the Service is not required for **No**

Effect determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

If any of the above activities are proposed, and the northern long-eared bat appears on the user's species list, the federal project user will be directed to either the range-wide northern long-eared bat D-key or the Federal Highways Administration, Federal Railways Administration, and Federal Transit Administration Indiana bat/ Northern long-eared bat D-key, depending on the type of project and federal agency involvement. Similar to the Minnesota-Wisconsin D-key, these d-keys helps to determine if prohibited take might occur and, if not, will generate an automated verification letter.

Please note: On November 30, 2022, the Service published a proposal final rule to reclassify the northern long-eared bat as endangered under the Endangered Species Act. On January 26, 2023, the Service published a 60-day extension for the final reclassification rule in the Federal Register, moving the effective listing date from January 30, 2023, to March 31, 2023. This extension will provide stakeholders and the public time to preview interim guidance and consultation tools before the rule becomes effective. When available, the tools will be available on the Service's northern long-eared bat website (https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis). Once the final rule goes into effect on March 31, 2023, the 4(d) D-key will no longer be available (4(d) rules are not available for federally endangered species) and will be replaced with a new Range-wide NLEB D-key (range-wide d-key). For projects not completed by March 31, 2023, that were previously reviewed under the 4(d) d-key, there may be a need for reinitiation of consultation. For these ongoing projects previously reviewed under the 4(d) d-key that may result in incidental take of the northern long-eared bat, we recommend you review your project using the new range-wide d-key once available. If your project does not comply with the range-wide d-key, it may be eligible for use of the Interim (formal) Consultation framework (framework). The framework is intended to facilitate the transition from the 4(d) rule to typical Section 7 consultation procedures for federally endangered species and will be available only until spring 2024. Again, when available, these tools (new range-wide d-key and framework) will be available on the Service's northern long-eared bat website.

Whooping Crane
Whooping crane is designated as a non-essential experimental population in Wisconsin and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park. If project activities are proposed on lands outside of a National Wildlife Refuge or National Park, then you are not required to consult. For additional information on this designation and consultation requirements, please review "Establishment of a Nonessential Experimental Population of Whooping Cranes in the Eastern United States."

Other Trust Resources and Activities
Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the

mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed voluntary guidelines for minimizing impacts.

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to guidelines developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's Wind Energy Guidelines. In addition, please refer to the Service's Eagle Conservation Plan Guidance, which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

State Department of Natural Resources Coordination
While it is not required for your Federal section 7 consultation, please note that additional state endangered or threatened species may also have the potential to be impacted. Please contact the Minnesota or Wisconsin Department of Natural Resources for information on state listed species that may be present in your proposed project area.

Minnesota
Minnesota Department of Natural Resources - Endangered Resources Review Homepage
Email: Review.NHIS@state.mn.us

Wisconsin
Wisconsin Department of Natural Resources - Endangered Resources Review Homepage
Email: DNRERReview@wi.gov

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
(952) 858-0793

PROJECT SUMMARY

Project Code: 2023-0098418
Project Name: Breezy Point WWTF Expansion
Project Type: Wastewater Facility - New Construction
Project Description: The City of Breezy Point owns and operates a wastewater treatment facility (WWTF) that utilizes a series of ponds to treat municipal wastewater to the point that it is suitable for disposal via forested spray irrigation fields. The City's facility presently includes 109.3 acres equipped for spray irrigation, with another 80 acres set aside for future expansion. The City is proposing to increase the treatment capacity of their WWTF through construction of a new aerated stabilization cell and additional spray irrigation fields to meet projected increases in demand and maintain compliance with discharge standards.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@46.576966350000006,-94.23104383322607,14z

Counties: Crow Wing County, Minnesota

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Gray Wolf *Canis lupus* Population: MN There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4488	Threatened
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31
Black Tern *Chlidonias niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20

NAME	BREEDING SEASON
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Common Tern *Sterna hirundo hirundo* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Aug 31
Golden-winged Warbler *Vermivora chrysoptera* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Ruddy Turnstone *Arenaria interpres morinella* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

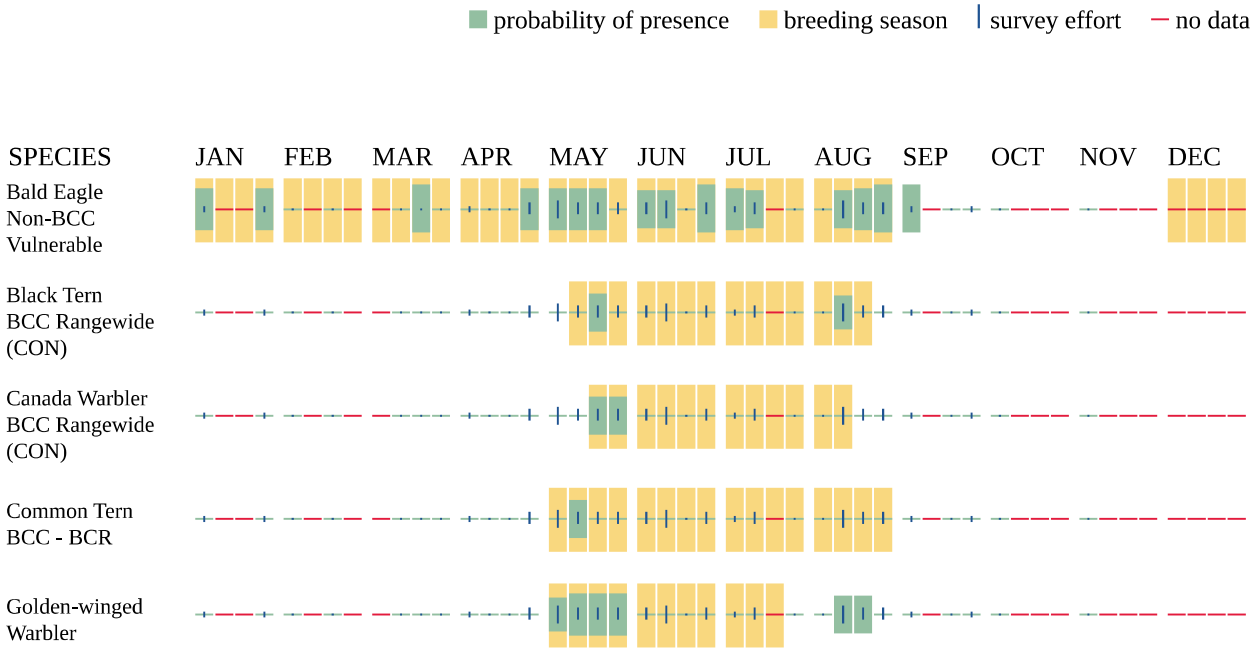
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

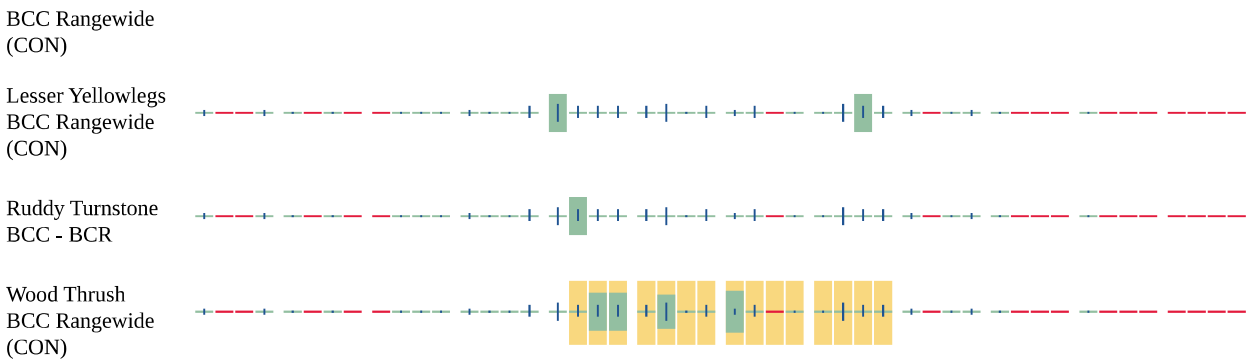
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides

birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1A

FRESHWATER FORESTED/SHRUB WETLAND

- PFO4Dg
- PSS1/EM1D
- PSS1D
- PFO1C
- PSS3/EM1Dg
- PSS1C
- PSS1/3D
- PFO1A

FRESHWATER POND

- PUBKx
- PABH

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Danny Perrault
Address: 610 fillmore St.
City: Alexandria
State: MN
Zip: 56308
Email danny.perrault@widseth.com
Phone: 3203355027

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
Phone: (952) 858-0793 Fax: (952) 646-2873

In Reply Refer To: June 27, 2023
Project code: 2023-0098418
Project Name: Breezy Point WWTF Expansion

Subject: Consistency letter for 'Breezy Point WWTF Expansion' for specified threatened and endangered species that may occur in your proposed project location consistent with the Minnesota-Wisconsin Endangered Species Determination Key (Minnesota-Wisconsin DKey).

Dear Danny Perrault:

The U.S. Fish and Wildlife Service (Service) received on **June 27, 2023** your effect determination(s) for the 'Breezy Point WWTF Expansion' (Action) using the Minnesota-Wisconsin DKey within the Information for Planning and Consultation (IPaC) system. You have submitted this key to satisfy requirements under Section 7(a)(2). The Service developed this system in accordance of with the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 et seq.).

Based on your answers and the assistance of the Service's Minnesota-Wisconsin DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Gray Wolf (*Canis lupus*)	Threatened	NLAA
Monarch Butterfly (*Danaus plexippus*)	Candidate	No effect
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	No effect

Determination Information
Thank you for informing the Service of your "NLAA" determination(s). No further coordination is necessary for the species you determined may be affected, but not likely to be adversely affected, by the Action.

Additional Information
Sufficient project details: Please provide sufficient project details on your project homepage in IPaC (Define Project, Project Description) to support your conclusions. Failure to disclose important aspects of your project that would influence the outcome of your effects determinations may negate your determinations and invalidate this letter. If you have site-specific

information that leads you to believe a different determination is more appropriate for your project than what the Dkey concludes, you can and should proceed based on the best available information.

Future project changes: The Service recommends that you contact the Minnesota-Wisconsin Ecological Services Field Office or re-evaluate the project in IPaC if: 1) the scope or location of the proposed Action is changed; 2) new information reveals that the action may affect listed species or designated critical habitat in a manner or to an extent not previously considered; 3) the Action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project changes are final or resources committed.

For non-Federal representatives: Please note that when a project requires consultation under section 7 of the Act, the Service must consult directly with the Federal action agency unless that agency formally designates a non-Federal representative (50 CFR 402.08). Non-Federal representatives may prepare analyses or conduct informal consultations; however, the ultimate responsibility for section 7 compliance under the Act remains with the Federal agency. Please include the Federal action agency in additional correspondence regarding this project.

Species-specific information

Bald and Golden Eagles: Bald eagles, golden eagles, and their nests are protected under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 U.S.C. 668a-d) (Eagle Act). The Eagle Act prohibits, except when authorized by an Eagle Act permit, the "taking" of bald and golden eagles and defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." The Eagle Act's implementing regulations define disturb as "… to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

You indicate that your project **is** near a bald eagle nest. **If the Action may affect bald or golden eagles, additional coordination with the Service under the Eagle Act may be required.** For more information on eagles and conducting activities in the vicinity of an eagle nest, please visit our regional eagle website or contact Margaret at Margaret_Rheude@fws.gov. In addition, the Service developed the National Bald Eagle Management Guidelines (May 2007) to assist landowners in avoiding the disturbance of bald eagles.

In general, the guidelines recommend that disturbance of nesting eagles be avoided by (1) Keeping a distance between the activity and the nest (distance buffers), (2) Maintaining preferably forested (or natural) areas between the activity and around nest trees (landscape buffers), and (3) Avoiding certain activities during the breeding season.

By adhering to the guidelines, landowners and project proponents should be able to avoid eagle disturbance most of the time. If avoiding disturbance is not possible, the project proponent may choose to apply for a take permit. A permit is not required to conduct any particular activity but is necessary to avoid potential liability for take caused by the activity.

The following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion:

- Northern Long-eared Bat *Myotis septentrionalis* Endangered

Coordination with the Service is not complete if additional coordination is advised above for any species.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Breezy Point WWTF Expansion

2. Description

The following description was provided for the project 'Breezy Point WWTF Expansion':

> The City of Breezy Point owns and operates a wastewater treatment facility (WWTF) that utilizes a series of ponds to treat municipal wastewater to the point that it is suitable for disposal via forested spray irrigation fields. The City's facility presently includes 109.3 acres equipped for spray irrigation, with another 80 acres set aside for future expansion. The City is proposing to increase the treatment capacity of their WWTF through construction of a new aerated stabilization cell and additional spray irrigation fields to meet projected increases in demand and maintain compliance with discharge standards.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@46.576966350000006,-94.23104383322607,14z

QUALIFICATION INTERVIEW

1. This determination key is intended to assist the user in evaluating the effects of their actions on Federally listed species in Minnesota and Wisconsin. It does not cover other prohibited activities under the Endangered Species Act (e.g., for wildlife: import/export, Interstate or foreign commerce, possession of illegally taken wildlife, etc.; for plants: import/export, reduce to possession, malicious destruction on Federal lands, commercial sale, etc.) or other statutes. Additionally, this key DOES NOT cover wind development, purposeful take (e.g., for research or surveys), communication towers that have guy wires or are over 450 feet in height, aerial or other large-scale application of any chemical (such as insecticide or herbicide), and approval of long-term permits or plans (e.g., FERC licenses, HCP's).

   Click **YES** to acknowledge that you must consider other prohibitions of the ESA or other statutes outside of this determination key.

   Yes
2. Is the action being funded, authorized, or carried out by a Federal agency?

   No
3. Are you the Federal agency or designated non-federal representative?

   No
4. Does the action involve the installation or operation of wind turbines?

   No
5. Does the action involve purposeful take of a listed animal?

   No
6. Does the action involve a new communications tower?

   No
7. Does the activity involve aerial or other large-scale application of ANY chemical, including pesticides (insecticide, herbicide, fungicide, rodenticide, etc)?

   No
8. Does the action occur near a bald eagle nest?

   Note: Contact the Minnesota or Wisconsin Department of Natural Resources for an up-to-date list of known bald eagle nests.

   Yes
9. Will your action permanently affect local hydrology?

   Yes

10. Does your project have the potential to impact the riparian zone or indirectly impact a stream/river (e.g., cut and fill; horizontal directional drilling; construction; vegetation removal; pesticide or fertilizer application; discharge; runoff of sediment or pollutants; increase in erosion, etc.)?

    Note: Consider all potential effects of the action, including those that may happen later in time and outside and downstream of the immediate area involved in the action.

    Endangered Species Act regulation defines "effects of the action" to include all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (50 CFR 402.02).

    Yes

11. Will your action disturb the ground or existing vegetation?

    Note: This includes any off-road vehicle access, soil compaction (enough to collapse a rodent burrow), digging, seismic survey, directional drilling, heavy equipment, grading, trenching, placement of fill, pesticide application (herbicide, fungicide), vegetation management (including removal or maintenance using equipment or prescribed fire), cultivation, development, etc.

    Yes

12. Will your action include spraying insecticides?

    No

13. Does your action area occur entirely within an already developed area?

    Note: Already developed areas are already paved, covered by existing structures, manicured lawns, industrial sites, or cultivated cropland, AND do not contain trees that could be roosting habitat. Be aware that listed species may occur in areas with natural, or semi-natural, vegetation immediately adjacent to existing utilities (e.g. roadways, railways) or within utility rights-of-way such as overhead transmission line corridors, and can utilize suitable trees, bridges, or culverts for roosting even in urban dominated landscapes (so these are not considered "already developed areas" for the purposes of this question). If unsure, select NO..

    No

14. Does the action area intersect with a known gray wolf denning or rendezvous area?

    No

15. Is there any potential for the action to harm wolves directly (e.g., mammal trapping, poison bait), or indirectly (e.g., increasing vehicle use that may result in vehicle strikes, exposure to potential human persecution)?

    No

16. [Hidden Semantic] Does the action area intersect the Threatened gray wolf AOI?

    Automatically answered

    Yes

17. [Hidden Semantic] Does the action area intersect the monarch butterfly species list area?

    Automatically answered
    Yes

18. Under the ESA, monarchs remain warranted but precluded by listing actions of higher priority. The monarch is a candidate for listing at this time. The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary.

    If your project will have no effect on monarch butterflies (for example, if your project won't affect their habitat or individuals), then you can make a "no effect" determination for this project.

    Are you making a "no effect" determination for monarch?

    Yes

19. [Hidden semantic] Does the action intersect the Tricolored bat species list area?

    Automatically answered
    Yes

20. The tricolored bat was proposed for listing as endangered on September 13, 2022. During winter, tricolored bats hibernate in caves, abandoned mines, and abandoned tunnels ranging from small to large in size. During spring, summer and fall months, they roost primarily among leaf clusters of live or recently dead deciduous/hardwood trees.

    What effect determination do you want to make for the tricolored bat (Only make a "may affect" determination if you think the project is likely to jeopardize the continued existence of the species)?

    1. "No effect"

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Danny Perrault
Address: 610 fillmore St.
City: Alexandria
State: MN
Zip: 56308
Email danny.perrault@widseth.com
Phone: 3203355027

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
Phone: (952) 858-0793 Fax: (952) 646-2873

In Reply Refer To:
Project code: 2023-0098418
Project Name: Breezy Point WWTF Expansion

June 27, 2023

Federal Nexus: no
Federal Action Agency (if applicable):

Subject: Technical assistance for 'Breezy Point WWTF Expansion'

Dear Danny Perrault:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 27, 2023, for 'Breezy Point WWTF Expansion' (here forward, Project). This project has been assigned Project Code 2023-0098418 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project is not reasonably certain to cause incidental take of the northern long-eared bat. Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Gray Wolf *Canis lupus* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species and/or critical habitat listed above. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

Next Steps

Coordination with the Service is complete. This letter serves as technical assistance. All conservation measures should be implemented as proposed. Thank you for considering federally listed species during your project planning.

We are uncertain where the northern long-eared bat occurs on the landscape outside of known locations. Because of the steep declines in the species and vast amount of available and suitable forest habitat, the presence of suitable forest habitat alone is a far less reliable predictor of their presence. Based on the best available information, most suitable habitat is now expected to be unoccupied. During the interim period, while we are working on potential methods to address this uncertainty, we conclude take is not reasonably certain to occur in areas of suitable habitat where presence has not been documented.

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place before project implements any changes which are final or commits additional resources.

If you have any questions regarding this letter or need further assistance, please contact the Minnesota-Wisconsin Ecological Services Field Office and reference Project Code 2023-0098418 associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Breezy Point WWTF Expansion

2. Description

The following description was provided for the project 'Breezy Point WWTF Expansion':

> The City of Breezy Point owns and operates a wastewater treatment facility (WWTF) that utilizes a series of ponds to treat municipal wastewater to the point that it is suitable for disposal via forested spray irrigation fields. The City's facility presently includes 109.3 acres equipped for spray irrigation, with another 80 acres set aside for future expansion. The City is proposing to increase the treatment capacity of their WWTF through construction of a new aerated stabilization cell and additional spray irrigation fields to meet projected increases in demand and maintain compliance with discharge standards.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@46.576966350000006,-94.23104383322607,14z

DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of "may affect, but not likely to adversely affect" for the Endangered northern long-eared bat (*Myotis septentrionalis*).

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

   Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

   No

3. Does any component of the action involve construction or operation of wind turbines?

   Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

   No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   No

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Danny Perrault
Address: 610 fillmore St.
City: Alexandria
State: MN
Zip: 56308
Email danny.perrault@widseth.com
Phone: 3203355027

Appendix B
NHIS Letter

Minnesota Department of Natural Resources
Division of Ecological & Water Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

August 31, 2023
Correspondence # MCE 2023-00489

Danny Perrault
Widseth Smith and Nolting and Associates, Inc.

RE: Natural Heritage Review of the proposed Breezy Point WWTF Expansion,
T136N R28W Sections 20-21, 28-29; Crow Wing County

Dear Danny Perrault,

As requested, the Minnesota Natural Heritage Information System has been reviewed to determine if the proposed project has the potential to impact any rare species or other significant natural features. Based on the project details provided with the request, the following rare features may be impacted by the proposed project:

Ecologically Significant Areas

- The Minnesota Biological Survey (MBS) has identified a Site of *High* Biodiversity Significance that encompasses the proposed project. Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked based on the relative significance of this biodiversity at a statewide level. Sites ranked as *High* contain very good quality occurrences of the rarest species, high quality examples of the rare native plant communities, and/or important functional landscapes. The project area also includes mapped examples of six native plant communities. These are, with their state conservation rank

    - APn81 – Northern Poor Conifer Swamp, S4: Apparently Secure,
    - APn91 – Northern Poor Fen, S3: Vulnerable to Extirpation,
    - FDc34 – Central Dry-Mesic Pine-Hardwood Forest, S2: Imperiled,
    - FPn72a – Rich Tamarack Swamp (Eastcentral), S3: Vulnerable to Extirpation,
    - WFn74 – Northern Wet Alder Swamp, S3: Vulnerable to Extirpation,
    - WMn82 - Northern Wet Meadow/Carr, S4: Apparently Secure

We encourage you to consider project alternatives that would avoid or minimize disturbance to this ecologically significant area. Actions to minimize disturbance may include, but are not limited to, the following recommendations:

- Minimize vehicular disturbance in the MBS Site (allow only vehicles/equipment necessary for construction activities);
- Do not park equipment or stockpile supplies in undeveloped or unmaintained parts of the MBS Site;
- Do not place spoil in undeveloped or unmaintained parts of the MBS Site;
- If possible, conduct the work under frozen ground conditions;
- Use effective erosion prevention and sediment control measures;
- Inspect and clean all equipment prior to bringing it to the Site to prevent the introduction and spread of invasive species;
- As much as possible, operate within already-disturbed areas;
- Revegetate disturbed soil with native species suitable to the local habitat as soon after construction as possible; and
- Use only weed-free mulches, topsoils, and seed mixes. Of particular concern are birdsfoot trefoil (*Lotus corniculatus*) and crown vetch (*Coronilla varia*), two invasive species that are sold commercially and are problematic in prairies and disturbed open areas.

MBS Sites of Biodiversity Significance and DNR Native Plant Communities can be viewed using the Minnesota Conservation Explorer or their GIS shapefiles can be downloaded from the MN Geospatial Commons. Please contact the NH Review Team if you need assistance accessing the data. Reference the MBS Site Biodiversity Significance and Native Plant Community websites for information on interpreting the data.

- Pelican Lake has been identified as a Lake of *Outstanding* Biological Significance. Lakes of Biological Significance were ranked as *Outstanding, High, or Moderate* based on unique plant and animal presence. This particular lake has records of a rare fish species, the least darter (*Etheostoma microperca*), a species of special concern, and the shoreline between the proposed project and Pelican Lake has been designated as a Highly Sensitive Shoreline by the DNR. Direct effects to the lake and shoreline are unlikely but possible surface or groundwater movement may transport water high in nutrients that could affect these areas.

- If the Wetland Conservation Act (WCA) is applicable to this project, please note that wetlands within High or Outstanding MBS Sites of Biodiversity Significance or in Native Plant Communities ranked S1-S3 may qualify as “rare natural communities” under this Act. Minnesota Rules, part 8420.0515, subpart 3 states that a wetland replacement plan for activities that modify a rare natural community must be denied if the local government unit determines the proposed activities will permanently adversely affect the natural community. If the proposed project includes a wetland replacement plan under WCA, please contact your DNR Regional Ecologist for

further evaluation. For technical guidance on Rare Natural Communities, please visit WCA Program Guidance and Information.

State-listed Species

- Blanding's turtles (*Emydoidea blandingii*), a state-listed threatened species, have been documented in the direct vicinity of the proposed project. Blanding's turtles use upland areas up to and over a mile distant from wetlands, waterbodies, and watercourses. Uplands are used for nesting, basking, periods of dormancy, and traveling between wetlands. Factors believed to contribute to the decline of this species include collisions with vehicles, wetland drainage and degradation, and the development of upland habitat. Any added mortality can be detrimental to populations of Blanding's turtles, as these turtles have a low reproduction rate that depends upon a high survival rate to maintain population levels.

  This project has the potential to impact this rare turtle through direct fatalities and habitat disturbance/destruction due to excavation, fill, and other construction activities associated with the project. Minnesota's Endangered Species Statute (*Minnesota Statutes*, section 84.0895) and associated Rules (*Minnesota Rules*, part 6212.1800 to 6212.2300 and 6134) prohibit the take of threatened or endangered species without a permit. **Given the project details and the potential for a take of a Blanding's turtle, an avoidance plan is required.**

  We do not currently have a template for avoidance plans. The plan needs to:

  - Provide a description of the project activities and construction methods,
  - Identify measures that will be taken to avoid take and minimize disturbance to the species, and
  - Include a map of disturbance areas. This can include a map of potential Blanding's turtle summer, winter, and nesting habitat overlayed with timing of project impacts.

  Measures to avoid or minimize disturbance include, but are not limited to, the following:

  - Avoidance of suitable habitat,
  - Timing the impacts to avoid incidental take,
  - The recommendations listed in the Blanding's turtle fact sheet,
  - Training for construction crew.

  Please submit the completed avoidance plan to the NH Review Team (Reports.NHIS@state.mn.us).

- Red-shouldered hawks (*Buteo lineatus*), a state-listed species of special concern, have been documented during the breeding season in the vicinity of the project. This species requires large, contiguous forest tracts interspersed with wetlands. We recommend, to the extent possible, the retention of forest cover to help maintain habitat connectivity to other forest tracts in the area.

Check any trees scheduled to be removed from April through July for active nests. If feasible, disturbance near active nests should be avoided during the critical nesting time, April and May. Please contact the Regional Nongame Specialist if any nests are discovered.

- The Natural Heritage Information System (NHIS) tracks bat roost trees and hibernacula plus some acoustic data, but this information is not exhaustive. Even if there are no bat records listed nearby, all seven of Minnesota's bats, including the federally endangered northern long-eared bat (*Myotis septentrionalis*), can be found throughout Minnesota. During the active season (approximately April-November) bats roost underneath bark, in cavities, or in crevices of both live and dead trees. Tree removal can negatively impact bats by destroying roosting habitat, especially during the pup rearing season when females are forming maternity roosting colonies and the pups cannot yet fly. To minimize these impacts, the DNR recommends that tree removal be avoided from June 1 through August 15.

- Please visit the DNR Rare Species Guide for more information on the habitat use of these species and recommended measures to avoid or minimize impacts. For further assistance with these species, please contact the appropriate DNR Regional Nongame Specialist or Regional Ecologist.

Federally Protected Species

- To ensure compliance with federal law, conduct a federal regulatory review using the U.S. Fish and Wildlife Service's (USFWS) online Information for Planning and Consultation (IPaC) tool.

Environmental Review and Permitting

- Please include a copy of this letter and the MCE-generated Final Project Report in any state or local license or permit application. Please note that measures to avoid or minimize disturbance to the above rare features may be included as restrictions or conditions in any required permits or licenses.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location and project description provided with the request. If

project details change or the project has not occurred within one year, please resubmit the project for review within one year of initiating project activities.

The Natural Heritage Review does not constitute project approval by the Department of Natural Resources. Instead, it identifies issues regarding known occurrences of rare features and potential impacts to these rare features. Visit the Natural Heritage Review website for additional information regarding this process, survey guidance, and other related information. For information on the environmental review process or other natural resource concerns, you may contact your DNR Regional Environmental Assessment Ecologist.

Thank you for consulting us on this matter and for your interest in preserving Minnesota's rare natural resources.

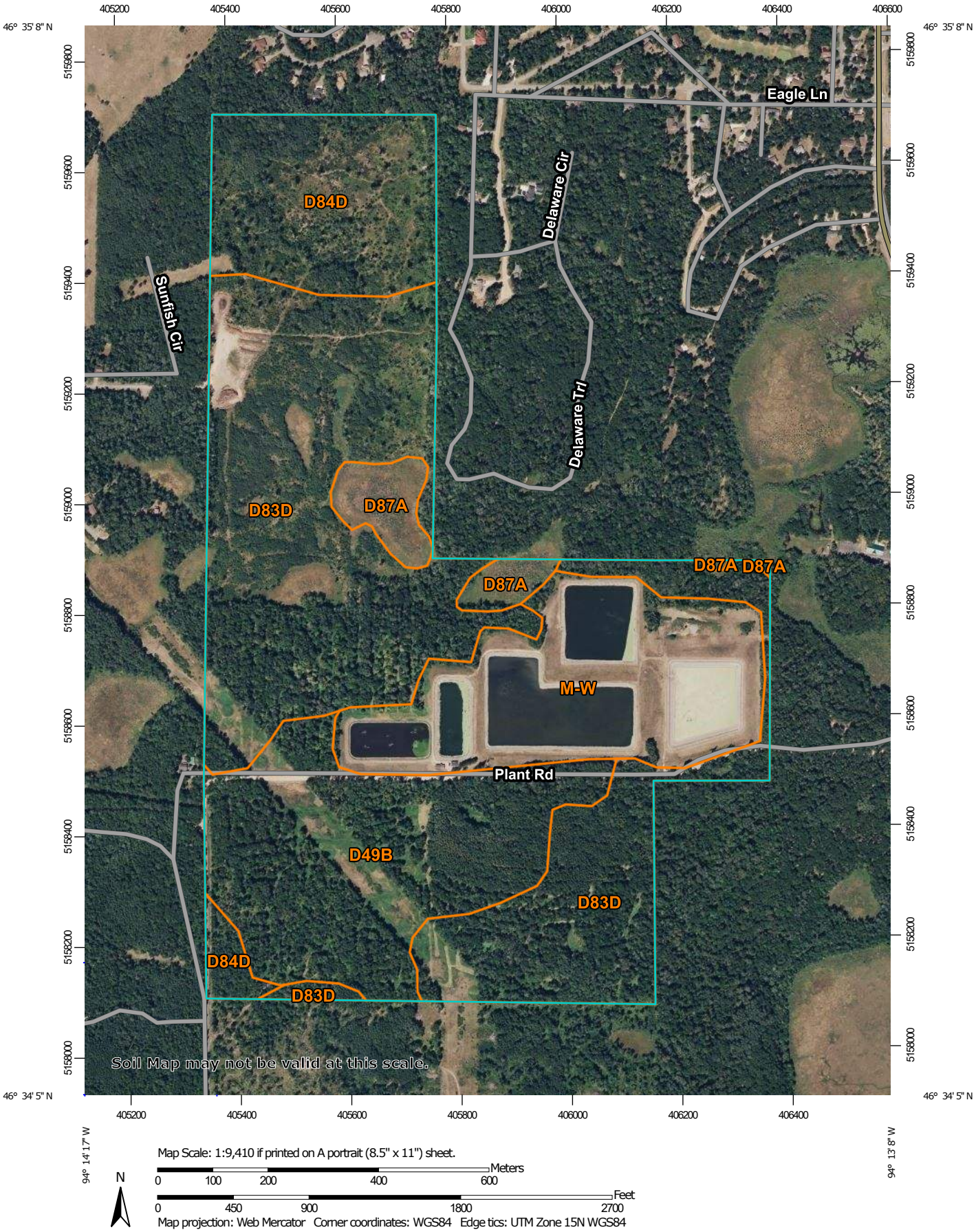
Sincerely,

James Drake
Natural Heritage Review Specialist
James.F.Drake@state.mn.us

Cc: Jessica Parson, Jennie Skanke, Mark White

Appendix C
Soil Map

Soil Map—Crow Wing County, Minnesota
(Breezy Point WWTF)



Map Scale: 1:9,410 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Crow Wing County, Minnesota
Survey Area Data: Version 18, Sep 6, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 13, 2021—Aug 14, 2021

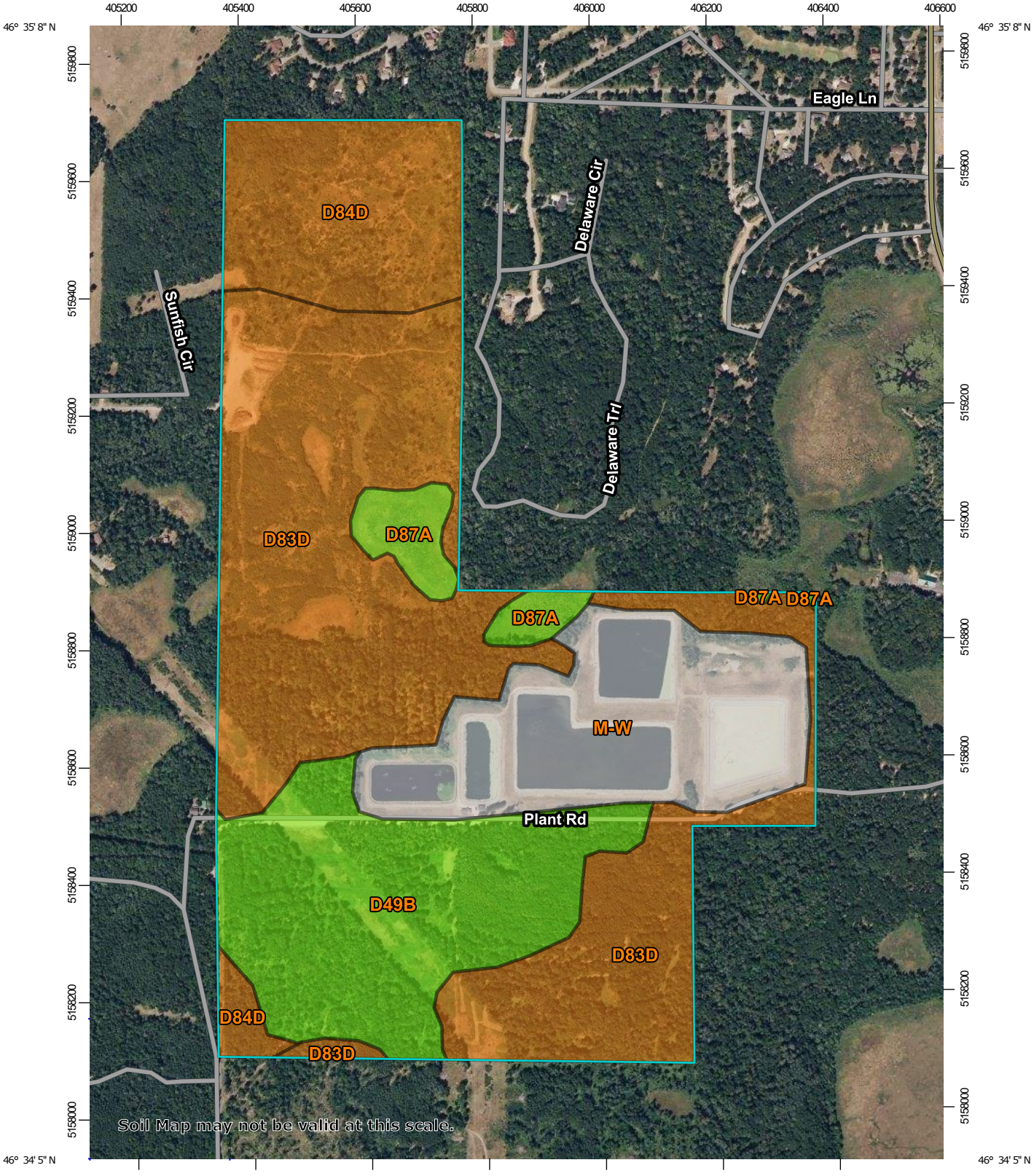
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
D49B	Graycalm loamy sand, 2 to 8 percent slopes	54.7	20.8%
D83D	Eutrudepts-Graycalm-Rollins complex, pitted, 10 to 20 percent slopes	117.1	44.4%
D84D	Eutrudepts-Graycalm-Rollins complex, 10 to 20 percent slopes	34.7	13.2%
D87A	Rifle-Rifle, ponded, complex, 0 to 1 percent slopes	9.2	3.5%
M-W	Water, miscellaneous	48.0	18.2%
Totals for Area of Interest		**263.7**	**100.0%**

Appendix D
Soil Erosion Hazard

Erosion Hazard (Road, Trail)—Crow Wing County, Minnesota
(Breezy Point WWTF)



Map Scale: 1:9,410 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Lines
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Points
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Crow Wing County, Minnesota
Survey Area Data: Version 18, Sep 6, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 13, 2021—Aug 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Erosion Hazard (Road, Trail)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
D49B	Graycalm loamy sand, 2 to 8 percent slopes	Slight	Graycalm (90%)		54.7	20.8%
			Graycalm, nearly level (10%)			
D83D	Eutrudepts-Graycalm-Rollins complex, pitted, 10 to 20 percent slopes	Severe	Eutrudepts, sandy (30%)	Slope/erodibility (0.95)	117.1	44.4%
			Rollins (20%)	Slope/erodibility (0.95)		
D84D	Eutrudepts-Graycalm-Rollins complex, 10 to 20 percent slopes	Severe	Eutrudepts, sandy (30%)	Slope/erodibility (0.95)	34.7	13.2%
			Rollins (20%)	Slope/erodibility (0.95)		
D87A	Rifle-Rifle, ponded, complex, 0 to 1 percent slopes	Slight	Rifle (55%)		9.2	3.5%
			Rifle, ponded (45%)			
M-W	Water, miscellaneous	Not rated	Water, miscellaneous (100%)		48.0	18.2%
Totals for Area of Interest					**263.7**	**100.0%**

Rating	Acres in AOI	Percent of AOI
Severe	151.9	57.6%
Slight	63.9	24.2%
Null or Not Rated	48.0	18.2%
Totals for Area of Interest	**263.7**	**100.0%**

Description

FOR - Forestry

The ratings in this interpretation indicate the hazard of soil loss from unsurfaced roads and trails. The ratings are based on soil erosion factor K, slope, and content of rock fragments.

The ratings are both verbal and numerical. The hazard is described as "slight," "moderate," or "severe." A rating of "slight" indicates that little or no erosion is likely; "moderate" indicates that some erosion is likely, that the roads or trails may require occasional maintenance, and that simple erosion-control measures are needed; and "severe" indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that costly erosion-control measures are needed.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix E
SHPO Database Results

COUNTY	SITENUM	SITENAME	TOWNSHIP	RANGE	SECTION	XQUARTERS	ACRES	WORKTYPE	DESCRIPT	TRADITION	CONTEXT	ReportNum	Natreg	CEF	DOE
Crow Wing	21CW0275		136	28	21	SW-NE-SW	0.1	1	SA						
	21CW0276		136	28	28	NE-SE-NW-NE	0.1	1	LS						
	21CW0277	Bair	136	28	28	NW-NE-SE-SE	0.1	1	SA						

COUNTY	CITYTWP	PROPNAME	ADDRESS	TOWNSHIP	RANGE	SECTION	QUARTERS	USGS	REPORTNUM	NRHP	CEF	DOE	INVENTNUM
Crow Wing													
	Pelican Twp.												
		summer cabin	28077 CR 18	136	28	28	SW-SE-NE	Pelican Lake	CW-2008-1W				CW-PEL-011
		summer cabin	28083 CR 18	136	28	28	SW-SE-SE	Pelican Lake	CW-2009-1H				CW-PEL-012
		summer cabin	28111 CR 18	136	28	28	SW-SE-SE	Pelican Lake	CW-2008-1H				CW-PEL-013
		summer cabin	28163 CR 18	136	28	28	NW-SE-SE	Pelican Lake	CW-2008-1H				CW-PEL-014
		summer cabin	28177 CR 18	136	28	28	NW-SE-SE	Pelican Lake	CW-2008-1H				CW-PEL-015
		summer cabin	28233 CR 18	136	28	28	NW-SE-SE	Pelican Lake	CW-2008-1H				CW-PEL-016
		summer cabin	28283 CR 18	136	28	28	SW-NE-SE	Pelican Lake	CW-2008-1H				CW-PEL-017
		summer cabin	28301 CR 18	136	28	28	SW-NE-SE	Pelican Lake	CW-2008-1H				CW-PEL-018
		summer cabin	28339 CR 18	136	28	28	SW-NE-SE	Pelican Lake	CW-2008-1H				CW-PEL-019
		summer cabin	9483 Ridgeview Lane	136	28	28	SW-NE-SE	Pelican Lake	CW-2008-1H				CW-PEL-020
		summer cabin	9479 Ridgeview Lane	136	28	28	SW-NE-SE	Pelican Lake	CW-2008-1H				CW-PEL-021
		summer cabin	9465 Ridgeview Lane	136	28	28	SW-NE-SE	Pelican Lake	CW-2008-1H				CW-PEL-022
		summer cabin	9275 Mockingbird Lane	136	28	28	SW-SE-NE	Pelican Lake	CW-2008-1H				CW-PEL-023
		summer cabin	29030 CR 18	136	28	21	SW-SW-SE	Pelican Lake	CW-2008-1H				CW-PEL-024
		summer cabin	29050 CR 18	136	28	21	SW-SW-SE	Pelican Lake	CW-2008-1H				CW-PEL-025
		building	29073 CR 18	136	28	21	SW-SW-SE	Pelican Lake	CW-2008-1H				CW-PEL-026
		summer cabin	29641 Apen Lane	136	28	21	SW-SE-NW	Pelican Lake	CW-2008-1H				CW-PEL-027

Appendix F

Section 106 Exemption Checklist

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Section 106 Review Exemption Checklist

Clean Water State Revolving Fund Program
Wastewater and Stormwater Projects
(36 CFR Part 800)

Doc Type: Wastewater Point Source

Instructions: If at least one of the "**Yes**" statements is checked, the project is considered to have completed these requirements and is not required to submit additional information to meet the provisions of the Section 106 review.

If the answer to all of the statements is "**No**", the project will be required to submit additional information to meet the provisions of the Section 106 review.

Project information

Project name: Breezy Point Wastewater Facility

MPCA Review engineer: _____ MPCA project number: _____

Exempt criteria	Yes	No
1. The project is limited to environmental study.	☐	☒
2. The project is limited to planning and design.	☐	☒
3. The project is for emergency/disaster relief and/or protection.	☐	☒
4. The project is limited to minor modifications to an existing treatment facility which is less than 45 years old.	☐	☒
5. The project is limited to modifications within existing buildings or treatment components.	☐	☒
6. The project is limited to collection system rehabilitation/replacement in previously disturbed soil with no major extension/expansion in undisturbed soil.	☐	☒
7. The project is limited to sanitary sewer lining.	☐	☒
8. The project is limited to installation of a generator to provide backup power in emergency situations.	☐	☒

If "Yes" to any of 1- 8 above, please provide a brief written description of the project and complete the Certification Statement below.

Certification statement

We certify that the information provided on this form is complete and accurate and that this project meets the exempt criteria established by Minnesota Pollution Control Agency.

Project authorized official or Design engineer

Print name: Joe Dubel, PE

Organization: Widseth

Signature: Joseph E. Dubel

Date (mm/dd/yyyy): 01/15/2024